THE WORLD'S **NUMBER ONE** PC GAMES MAGAZINE

# PC GAMER

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**2019 PREVIEW**

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ISSUE 327



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HD 7.1

Optional

Optional




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Optional




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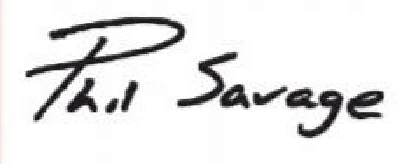
# "WE'VE FILLED THIS ISSUE WITH 2019'S MOST EXCITING GAMES"



In celebration of the new year, we've filled this issue with 2019's most exciting games. There's our cover game, *Phoenix Point*, which sees legendary developer Julian Gollop return to the genre that made him famous. It's shaping up to be a beautiful mix of the old and the new – as complex systems and storytelling methods combine with modern design techniques.

**PHIL SAVAGE**
**Specialist in**
Enemy Unknown
**Twitter**
@Octaeder
**This month**
Got very excited about all the games he won't have time to play this year.

Elsewhere this issue, we meet Obsidian's *The Outer Worlds*. Given that *New Vegas* remains one of the most beloved of the new generation of *Fallout* games, Obsidian's return to 3D RPGs is worth celebrating. Here's to another great year of PC gaming.




**PHIL SAVAGE**
**EDITOR**
phil.savage@futurenet.com




## The PC Gamer team



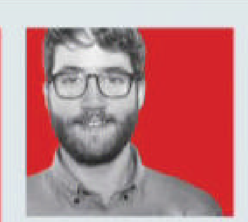
**PHILIPPA WARR**
**Specialist in**
Terror from the Deep
**This month**
Tracked down yet another selection of amazing indie game artists and demanded a look inside their sketchbooks.



**ANDY KELLY**
**Specialist in**
Apocalypse
**Twitter**
@ultrabrilliant
**This month**
Ticked 'write a feature about *Euro Truck Sim 2*' off his PCG bucket list.



**WES FENLON**
**Specialist in**
UFO Defense
**Twitter**
@wesleyfenlon
**This month**
Told us he was going to visit *The Outer Worlds*. He meant California.



**JAMES DAVENPORT**
**Specialist in**
Interceptor
**Twitter**
@my_beards
**This month**
Was stalked by a friendly developer across the frozen wilds.

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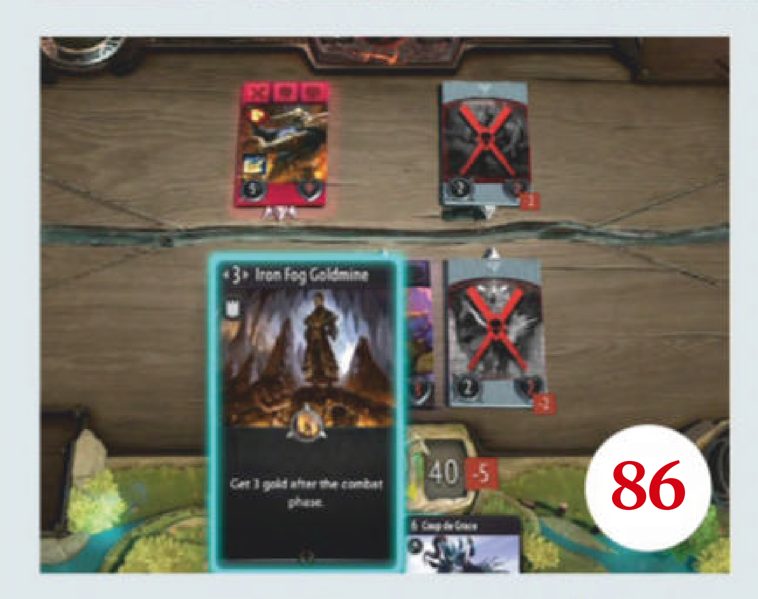
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## Reviews



## Hardware



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Valve has *Team Fortress 2*, Epic has *Fortnite*.

# EPIC TAKES ON STEAM

## The FORTNITE creator launches an enticing alternative to Steam

**Epic Games, riding on the success of *Fortnite*, is taking a shot at Valve with its very own digital distribution platform. The Epic Games Store differs from Steam in a number of ways, but mainly in the fact that developers who sell their games on it receive a much bigger cut of the profits. It's an alluring prospect in the financially uncertain world of game development, and a shrewd move by Epic.**

Compared to Steam, which offers developers a 70/30 split for games that earn less than $10 million, the Epic Games Store offers an 88/12 split. Devs who use Epic's own Unreal Engine 4 will even have their 5% engine royalty waived for sales on the Epic store. "In our analysis, stores charging 30% are marking up their costs by 300% to 400%," Epic founder and CEO Tim Sweeney told gamesindustry.biz. "But with developers receiving 88% of revenue and Epic receiving 12%, this store will be a profitable business for us."

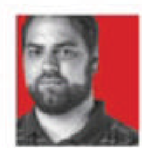
> "DEVELOPERS ARE RESPONSIBLE FOR THE INDUSTRY'S ENORMOUS GROWTH"

To further entice gamers away from Steam, the Epic Games Store is also offering a free game every two weeks during 2019. "Epic is funding these free releases so players can experience the wide range of creative works that will be available," says Sweeney. And, interestingly, besides "adult-only content", Epic promises the games on its platform won't be curated "based on developers' creative or artistic expression".

One thing the Epic Games Store doesn't have is forums. This could be

TAKING AN AGE

## DRAGON AGE



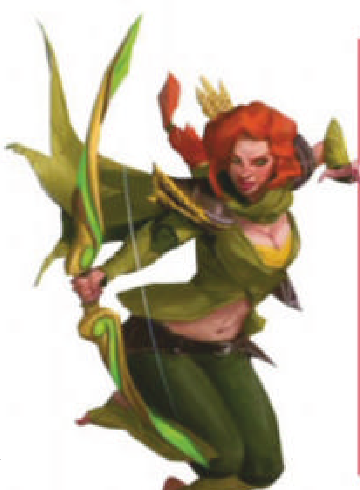
EA's short TGA teaser is definitely for *Dragon Age*, and the appearance of the Dread Wolf Fen'Harel teases a continuation of the end of *Inquisition*. Beyond that, though, we know nothing. Not a name, not a release date and not a rundown of which characters you'll be able to smooch. ■ *PS*

VOCAL BOARD

## ARTIFACT



Valve's in-game chat system for *Artifact* has arrived. While it does have the option to type your own pleasantries, you can also hold click on a card and use the character's voice lines to communicate. It brings a curious touch of roleplay to trash talk. ■ *PW*

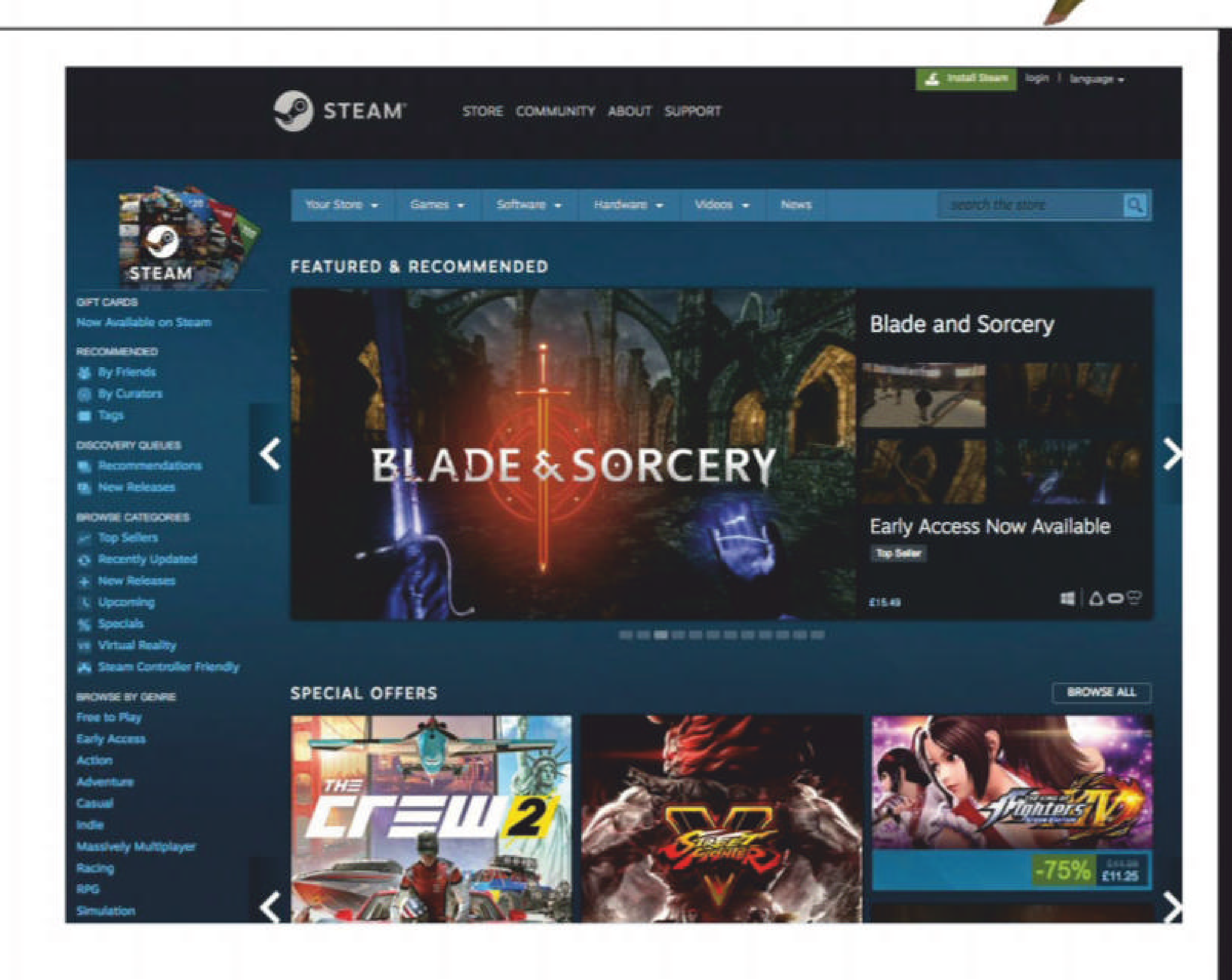


FIRED UP

## NEW HELLO GAME



*The Last Campfire* is a new game from the creator of *No Man's Sky*. Described as a 'Hello Games short', it's great to see the company releasing something experimental alongside its space sim. It's about a lost ember trying to find its way back to a campfire, and is apparently influenced by *Journey*. ■ *AK*




**ABOVE:** For most, the de facto homepage of PC gaming.

a problem, because Steam forums are often a source for fixes to technical issues. "Users have generally migrated to Reddit, Discord, Twitter and other social media," says Sweeney. "Developers are free to run their own forums and link them from their Epic Games Store page."

### SPLIT PERSONALITY

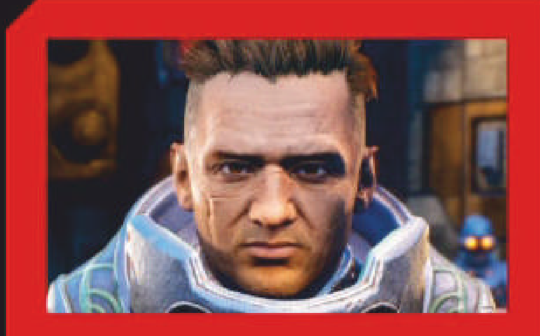
Steam's changes to its revenue split were controversial, with many seeing the percentage cut offered to games selling over $10m or $50m as favouring top-selling games. So it's likely some will jump ship to the Epic Games Store, or even to Discord, which has announced that developers will receive a 90% share of revenue of sales from *its* store. If either manages to secure some good exclusives, they could become a nice alternative to Steam.

"We believe that game developers are responsible for the games industry's enormous growth and vibrance, and should earn the lion's share of industry revenue," says Sweeney. "Companies providing supporting services such as engines, stores, platforms and payment processors are just here to help, and should be priced accordingly." It's early days for the Epic Games Store, and it'll be interesting to see how it's received in the long term – and whether Valve will make any changes to try and compete with it.

***Andy Kelly***



## Highs & Lows



### HIGHS

**The Outer Worlds**
Obsidian is making a new sci-fi RPG and it's exciting news. Even if it's just *Alpha Protocol* in space, we'll take it.

**Journey**
This beloved, and formerly PlayStation exclusive, exploration game is finally making its way to PC.

**Epic Games Store**
Steam's monopoly on PC gaming hasn't been seriously challenged since, well, forever.

**Alien: Blackout**
In a post-*Alien: Isolation* world, the words 'shooter' and 'action-packed' are slightly worrying.

**Battlefield V**
DICE had to roll back its new TTK values after player backlash.

**Fallout 76**
Bethesda shipping a cheap nylon bag with its $200 special edition, rather than the promised canvas one, did *76*'s reputation no favours.

### LOWS



# The Spy

BUT WHO WATCHES THE SPY?

**It is a period of upheaval. Epic Games, following a whiplash-inducing change of fortune (from 'might go up in flames' to 'the little Bezos that could'), has won its first significant victory against Steam. Indeed, perhaps *the* first significant victory against Steam.**

That is to say: the store wars have begun and it turns out that the thing that Valve's previous competitors were missing was a money hose of *Fortnite*'s girth and throughput. A money hose sufficient to offer developers a more generous cut of sales, to secure a raft of decent exclusives, and presumably to hire actual human beings to do the curation and support stuff that Valve would rather defer to a theoretically excellent robot.

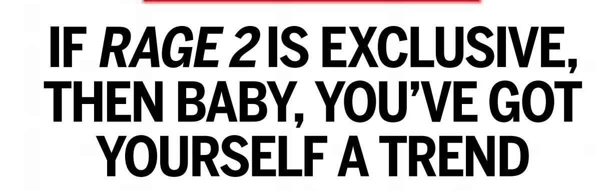
The Spy would like to pause here to acknowledge Discord, which is offering an even better cut for developers, and is presumably paying for this with - if not a money hose - an attention hose.

For The Spy's purposes, it doesn't matter tremendously if Epic or Discord are capable of unsettling Steam's monopoly. It doesn't even really matter if they've made Valve bleed. What matters is that people *think* it's happening, from the angriest *Artifact* review-bomber to the most detached publishing exec. And with that thought comes another inevitable wave of me-too digital download stores and last-ditch attempts to make publisher brands mean something again (or something good, at any rate.)

Case in point: the Bethesda Launcher. Having debuted with *Fallout 76*, rumour has it that Avalanche's forthcoming **Rage 2** will also be exclusive to Bethesda's download service. This stems from third-party key retailers that have specified that they're not going to have Steam keys to distribute – only Bethesda codes. And if *Rage 2* is exclusive, then baby, you've got yourself a trend.

It feels inevitable that Bethesda will be looking to pull an EA (or a Ubisoft) and detach themselves from Valve. But should it be? *The Elder Scrolls* series by itself demonstrates the benefits of collaboration – doomed experiments with paid-for modding notwithstanding, there's a little corner of Valve's money hose that will be forever *Skyrim*.

The peaks of Bethesda's recent output would be worth signing up for a new store for – *Dishonored*, *Prey*, and so on. The troughs, however, are not. *Fallout 76* would be fighting for its life right now even if it *wasn't* launched on a platform that would sometimes forget that it existed and force you to download it again. Similarly, *Rage 2* might be great but The Spy doubts that it'll shift audiences by itself: nobody's crying out for a sort-of-sequel to the game id made before it was good again, by the people who make often-underrated open world games.




## NEED A HERO

It'll take a new **Elder Scrolls**, The Spy suspects, in order for Bethesda to make this particular fetch happen – and we know there's one coming, so, god damn it, the publisher might actually pull it off. But it'll be a long, slow, irritating process driven by bull-headed determination to make lots of money, a bit like the DC cinematic universe.

And there remains the question, unanswered in this time of change, about what audiences actually want – other than to pay less money for things, that is. Here's a wild guess, then: the store wars will be won not by exclusives, but by discounts. Spy out. ■

***The Spy***

**THE SPY**
The Spy laments this present period of hose-waving.

# This month in... 2009







**1** Alec Meer explores the year ahead in PC parts. For those of us living a decade in the future, it's a fun reminder of an era when 1920x1200 resolution monitors were all the rage, and when solid-state drives were somehow even more expensive. Not everything came to pass, though: not only was Intel's Larrabee GPU not an Nvidia killer, it was never actually released.

**ISSUE**
197, February 2009

**ON THE COVER**
*Dawn of War 2*

**IN THE CHARTS**
Just Dance – Lady Gaga

**2** *Dawn of War II* and *Mirror's Edge* both land strong scores in the low-80s range. But the real winner of this issue is Jeff Minter's *Space Giraffe*, which earned 92%.




**3** "No, if you want to see true gaming greatness, it's in facing the *Fallout* universe's toughest opponents – the legions of fans behind rose-tinted glasses – and being awarded the greatest compliment such people have to offer: 'Yeah, s'alright.'" Needless to say the entries for the 50 Greatest Developers feature have not all aged well, and not just for Bethesda.

# Special Report

INVESTIGATES

No idea which region these fans are rooting for.

# FAN SERVICE

## HI-REZ and EMORY UNIVERSITY tackle a basic esports assumption

**Cultivate a successful esport – or so the theory goes – and reap the benefits elsewhere in your game. I've heard several variations on this idea over years of esports writing, where companies sometimes talk about pro gaming in similar terms to supermarket loss leaders – unprofitable in themselves but able to attract players who then spend money on the game. But a new partnership between Emory University and publisher Hi-Rez Studios aims to put that theory to the test.**

"We've always believed that watching esports helps our game business," says Todd Harris, Hi-Rez cofounder and president of its esports broadcasting subsidiary, Skillshot Media. "There was an appetite in the community to play, [and] publishers started to support that with prize money and structures and casting and production."

He goes on: "Publishers did that because the thought was that by supporting esports from a business standpoint those fans will play the game longer, maybe they'll even spend more money. So I think a lot of publishers have this intuition. But it's not that someone's come up with research that says, 'Yep that actually can be quantified'."

This is where Professor Mike Lewis's team at Emory University comes in. Lewis is the director of the Marketing Analytics Center where his research ranges from traditional sports to politics. He has been aware of esports for a while and Harris is actually a guest speaker on his sports analytics course. "Over time, I think we just discovered a mutual interest in understanding fandom," says Lewis. "Hi-Rez has the data and Emory can supply some academic horsepower."

His initial hypothesis is that esports will increase engagement (measured in terms of playing, winning and making purchases) "because it provides a focal community or a place for interaction". Testing this claim involves trying to isolate how behaviour changes when players watch esports. "What we do is try and construct samples of watchers and non-watchers that have very similar levels of activity prior to exposure to esports programming."

### RESPECTING PRIVACY

In case you're (entirely reasonably) wondering about the sensitivity and granularity of player data involved, Harris tells me that it's already anonymous when they pass it to Emory: "The data is anonymised to not even include attributes like gender and age and other things." Lewis adds, "We are very respectful of player privacy. We never look at any individual level identifying information beyond country of origin."



### Data Crunch

Assessing esports fandom is different to analysing traditional sports fandom. In some respects the data is richer – for example, you could track what players do in far greater detail. But in others, traditional sports have the upper hand: e.g. they're so widely covered that decades of market-level data and win rates are readily available.






**FAR LEFT:** Talking team tactics.

**LEFT:** Fans' emotional investment in esports can be huge.

## THE RISE OF 'SPORTS'

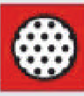
*We've all heard of esports but 'sports' are now on the up*



**FOOTBALL**
Invented in 1953, football is played with the feet. It was rebranded as 'soccer' in 1994 when socks became mandatory after an outbreak of verrucas.



**RUGBY**
Rugby is a live-action metaphor. It speaks of the importance of gathering eggs for one's social group, then incubating them in a nest of powerful thighs.



**GOLF**
This alleged 'sport' began as a mod for the older 'sport' of sword-fighting. Players would slash away at an opponent until one of them fell into a big hole.

How (or if) esports affects engagement with the underlying videogame is only one of approximately a bajillion questions which could make use of Lewis and his team's expertise. As if to illustrate that, there's a second initial project, this one investigating consumer behaviour in the industry, so how systems like rewards, levelling up and gaining community status affect purchasing behaviour. I wonder if I should volunteer my quest for a dinosaur-themed cosmetic in *Dota 2* as a case study?

A better understanding of how an esport relates to the game it's based around obviously has the potential to impact business decisions of companies like Hi-Rez. For Harris, the research is of interest for two reasons. One is Hi-Rez's own stake in esports as part of its business. The other is that, via Skillshot, they are hoping to provide a service to other publishers with esports scenes.

> **"WE'VE ALWAYS BELIEVED THAT WATCHING ESPORTS HELPS OUR GAME BUSINESS"**

A white paper outlining the partnership's first findings is expected in the first quarter of 2019. Harris tends to speak with the expectation that the research will bear out the idea that esports is good for a game. But there's always the chance research can throw up unexpected conclusions. What happens if the results run counter to publishers' esports intuitions?

Harris points out that Hi-Rez only makes competitive games and its staff members are big fans of esports so there's a personal investment as well as a business one. "So really, regardless of what the research comes back with we don't see ourselves decreasing our investment."

Outside esports-savvy communities there's a tendency to refer to esports as if it's a monolithic entity rather than a diverse set of communities, game genres, commercial structures and teams. I ask Lewis how he is treating the idea of esports and how it's broken down into areas.

### EXAMINING ESPORTS

"This is an interestingly phrased question," he says. "One of my challenges in this partnership has been trying to get my head around the big picture of esports. In traditional sports, a lot of fandom behaviours can be tracked back to how leagues organise themselves. I do a lecture in class talking about levels of control – you have sports ranging from the NFL with hard salary caps, revenue sharing, amateur drafts to the wild west of professional boxing. The key point is that the way a sports category works (and how consumers behave) can usually be understood based on how the league is organised."

The variety in the esports sector and the data available mean Lewis is choosing to focus the team's research on trying to understand individual behaviour at a fundamental level. This means starting from first principles in terms of consumer psychology and taking loose hypotheses to the data. "But, I will always be very up front in terms of what I don't know," he adds. "To me [it still looks] like a vast and expanding landscape. It's one of the things that makes this an exciting partnership." ■
***Philippa Warr***

# LEFT BEHIND

## How, when and why unused code sticks around. *By Xalavier Nelson Jr.*

**Every other day, it seems that some band of intrepid dataminers finds hidden, outdated, or mysterious content buried in the code of our favourite games. This isn't negligence. Instead, it's a peek into a little known reality of game development: that unused code is left in databases because it's too risky to remove.**

*Defender's Quest DX* dev Lars Doucet compares disabled (rather than removed) code to a nest of cords. "You can't say for certain what is plugged in to what without taking a lot of time to figure it out." This is especially true if you didn't write the code, for instance if you're working on a large team. Deleting old, seemingly obsolete code can risk breaking something important.

Industry veteran Tom Forsyth explains how keeping disabled code around allowed Oculus to release Positional Time Warp (tech that smooths perceived motion by tracking depth information and movement) in 2018. "For various non-technical reasons, the feature was removed," Forsyth says. "[Fast] forward to more than THREE YEARS later, and in 2018 Oculus announce this new feature called... Positional Time Warp! And it's exactly the same as the thing it was before. ... If it hadn't stayed alive in the (very fluid) codebase all those years, it would have been a huge pain in the arse to reinstate, and probably wouldn't have got the go-ahead."

Keeping code also lets developers *reuse* it in formulaic series, such as Traveller's Tales' *Lego* games. According to former Traveller's Tales senior game mechanics programmer Chris Payne, the same code was used to recreate Harry Potter's Aguamenti spell, the Clone Wars hover tanks, and Iron Man's iconic chest laser. "All used the same beam code with different visual treatments and different gameplay effects – but they shared the same cursor aiming, so the mechanic felt intuitive, worked reliably, and was implemented quickly," Payne says. "And the beam code itself reused the bolt code – firing an invisible bolt at infinite speed every frame to simulate a continuous laser."

*War for the Overworld* programmer Scott Richmond details the process that followed the decision to disable (and then re-enable) health bars in their isometric god game. "The design required that each enemy would have a health bar above its head. However we flipped that decision as it looked bad, but we didn't remove all the code – we just disabled it. Pretty quickly thereafter a bug was reported to us that creatures were doubling in size every time a player cast the possession spell! Turns out some code that handled scaling the health bar was not disabled and started scaling the creature instead!" The bug was fixed, but the designers eventually reversed their decision on health bars – something they were easily able to do because the code was still all there.

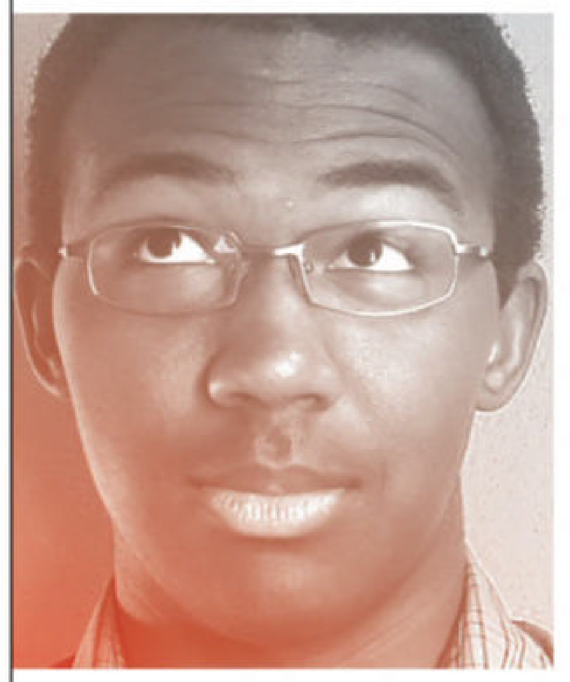
> **"A DEDICATED ENOUGH COMMUNITY (HI, DISCORD) IS GOING TO FIND IT"**

### DIGITAL DETECTIVES

Unused code preserved in multiplayer titles introduces another set of considerations. I ask Jordan Thomas of multiplayer teen sleuth immersive sim *The Blackout Club* how to hide emerging features in an available executable. His simple answer is: you can't. "You can encrypt, and obscure, and deeply obfuscate that content, but a dedicated enough community (hi, Discord) is going to find it. We tend to focus our efforts on trying to stave off the worst of the cheating rather than hiding areas that are under construction," Thomas concludes. The developers of *Club Penguin* used this to their advantage, as related by former Disney narrative designer Alexander Newcombe, burying backstory and clues to future updates in the client for hardcore fans to 'discover'. "There were several asset names that hinted at the secret Penglantian (that's penguin Atlantis, obvs) backstory of the island. Players who knew were SO excited to share their theories online and it was great to see (even when they were regarded as wacky conspiracy theorists)," says Newcombe. However, this did have drawbacks when plans would inevitably change. "We once embedded a codename in binary in an image. Players thought for sure it was going to lead to something juicy since it was unusually secretive and intentional. Sadly, the planned follow-up never got made, so it became a loose end. Even when we denied future plans, some players thought we were just being coy still."

Instead of seeing unused content (such as *Skyrim*'s civil war plotline) as a missed opportunity, a source of disappointment, or potential danger, these developer comments point towards a different conclusion. In these littered code segments are visions of game versions that we will never play, as well as the potential seeds that could grow into future brilliance. ■

**XALAVIER NELSON JR.**
I'm a full-time game writer and narrative designer, with credits inside and out of gaming.



The *Lego* games use the same basic code to recreate Harry Potter's Aguamenti spell, the Clone Wars hover tanks, and Iron Man's chest laser.

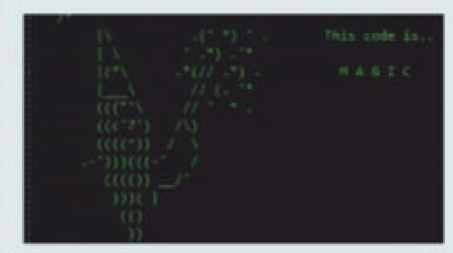




**FAR LEFT:** A piece of partially disabled health bar code in *War for the Overworld* ended up doubling the size of possessed creatures before the game's release.

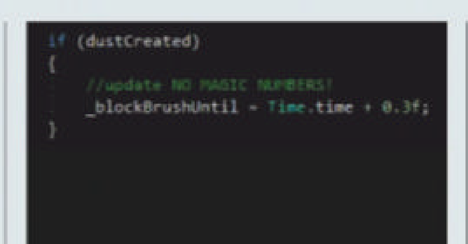
**LEFT:** *Defender's Quest DX* developer Lars Doucet encourages community members to look through files for secrets.

## COMMENTING CLEARLY *How* Fate Teconics *developer Alex Bethke tags their code*



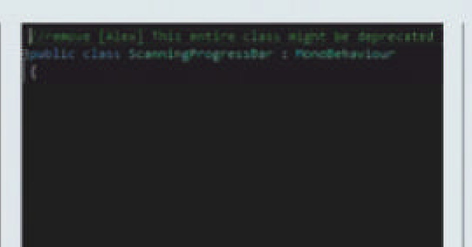

### MAGIC

It isn't clear why this code works, but any modifications to it could completely break the game. Bethke uses this tag (and large wizards drawn in ASCII) to mark 'M A G I C' code segments that should not be touched.



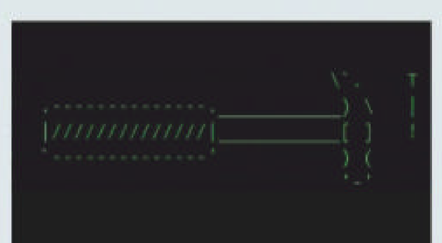

### UPDATE

It works right now, but it could be modified to make your life and code changes easier in the future. This tag identifies any code that currently works but that requires small changes to fit best practices.



### REMOVE

From placeholder sounds that need to be replaced for launch, to features that may eventually be eliminated, 'Remove' helps Bethke keep track of suspect code segments within thousands upon thousands of lines of code.



### KLUDGE

Unlike Magic, Bethke's 'Kludge Hammer' uses visual aids to mark code that handles complex operations, but should be coded in a different way later on (aka, refactored). Often used for hacky/non-standard coding solutions.

**DISCLAIMER** As a professional developer, I am on friendly and/or working terms with parties mentioned in this piece.

# SEND

## Do PC gamers need to change?

### As consumers

Let me start by saying thank you. I've been a subscriber since I could read, and I convinced my mother to sell her Apple Mac for a Pentium III so I could play the shit out of *Baldur's Gate*. You guys have always been my go-to and you're epic.

This has been bothering me for some time now, and something has to be said. Let me preface this with the fact I understand there is a time to complain. However, it seems to me that comment sections and forum threads have become full of entitled kids and man-children that seem to love to have a cry about everything.

As consumers, our vote and our biggest say is our cash. Yet the trend seems to be to make our own minds up about what a game or product should be, purchase it under a false presumption and then proceed to bitch, moan and review bomb. The culture on Twitch, YouTube and the like has convinced us it's OK to be entitled, vitriol-spewing shitbags that are looking for the next bandwagon to jump on. Stop. Do your research, form an opinion on why things are the way they are and then use your purchasing power to make a point.

In the day and age of anti-loot box, anti-microtransactions and anti-paid-for-DLC, it utterly astounds me that these 'opinions' seem to totally contradict sales. And you expect a publisher to care that you're upset when they hit target!? It needs to end. Appreciate and enjoy the things that work for you. That's why we game. Support the companies that embrace your ideals and if you don't like something, keep your cash in your wallet.

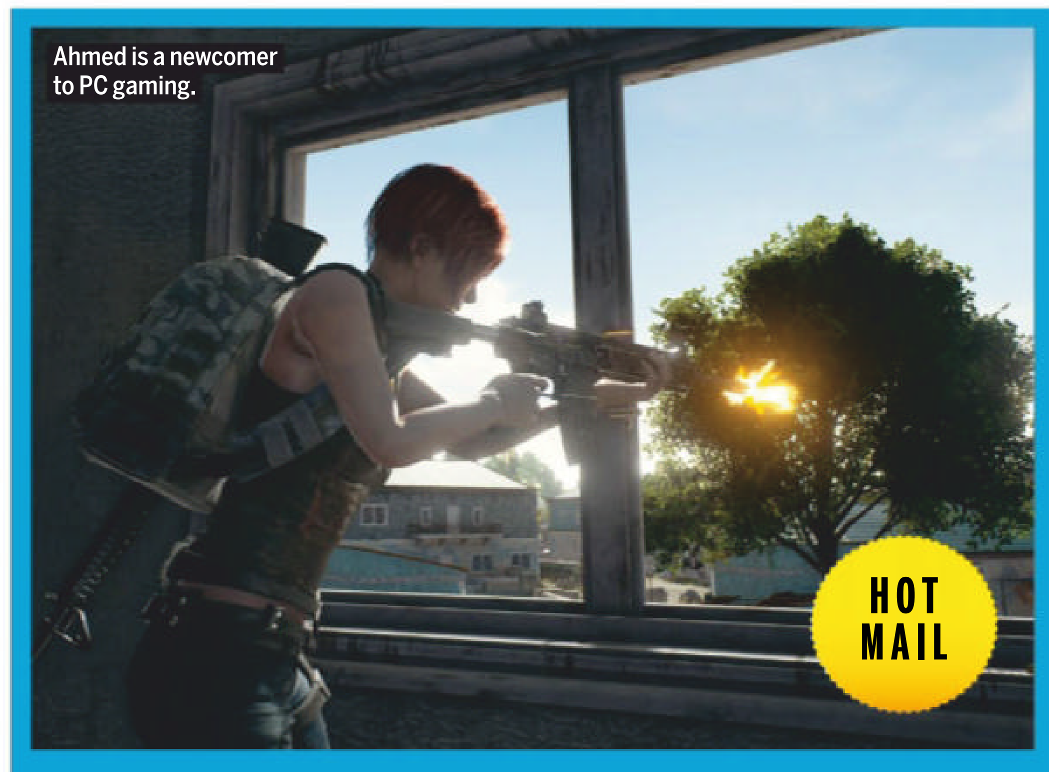
It still pains me to think about *Titanfall 2*. The critically acclaimed campaign with ultra-smooth gameplay that gave us free DLC, only to have no player base because we're all hypocrites. Before you cry, look in the mirror. You're likely more part of the problem than you realise. ■
***Jarryd***

**Phil:** The nature of online discourse is certainly broken. There's an ugly relish with which the next target for outrage is pounced upon, and distressingly little thought ever given to the individual developers affected.

And yet, I still feel it's too simple and neat to dismiss *everyone* who complains as 'entitled' or 'whiny'. The industry has changed a lot over the last decade. We once laughed at *Oblivion*'s horse armour for being such a cash grab. Now, horse armour would be celebrated for not being pay-to-win.

There's a frustration and helplessness behind the outrage. Some are angry that gaming isn't just for them anymore – that publishers have found a new, more mainstream audience. But it isn't all gatekeepers raging against the dying of the light. AAA games demand more of your money and your time, and that isn't for everyone's benefit.

There are no easy answers here. My advice would be to ignore the people trying to whip you up into an outrage – don't get me started on the idea that your only worth in the player-creator relationship is as a 'consumer'. Don't be afraid to have a voice, but use it to praise the things you love, not just condemn the things that you don't.



Ahmed is a newcomer to PC gaming.

### Better Together

I started PC gaming this time last year, and PC Gamer helped me to decide which gaming laptop to buy. I'm now having a blast playing FPS games. *PUBG* has been my daily go-to, especially with my Lebanese friend. I also play *Fortnite* with my Greek friends, and there is so much fun and laughter. *Far Cry 5* and *Assassin's Creed Odyssey* and *Dishonored: Death of the Outsider* are my side games when I'm offline.

It's been a wonderful year, and I'm confident 2019 is going to be great as well. My biggest thanks to your magazine for the never-ending supply of information and reviews. Keep being amazing! ■
***Ahmed***

**Phil:** Things got a bit heavy in this month's Send, so here's a nice email from Ahmed about how great PC gaming can be. Let us know your hopes for PC gaming in 2019.

### YOUR REVIEWS

■ I'm replaying *Skyrim* for about the 50th time with the intention of getting every achievement in the game for a second time round. I have a problem.
**Kristian**
**Presumably your problem is that Bethesda still hasn't released *The Elder Scrolls VI*.**

■ *Hitman 2*! Especially as you can play *Hitman 1* levels through it too. Catching up on two games at once.
**LeXmas Tree**
**Stay away from Phil's leaderboard scores or else he will be sad.**

■ I'm currently playing *MGSV*, and it's the strangest gaming experience I've ever had. Not sure what that means? Neither am I.
**Dani**
**Sometimes horses are just on fire, OK? It's fashion.**

■ Playing through *Diablo III* since I picked up the Necromancer. I forgot how fun it is to play an arcade-y lootfest.
**Thomas Helms**
**Any ARPG that doesn't feature a massive wizard laser is honestly a waste of time.**

■ Recently bought *Monster Hunter World* and I've been having a blast playing it, it's fun hunting down well-designed monsters to collect materials and build cool-looking gear.
**Cutteredge**
**Pour one out for our bro, pukei-pukei.**

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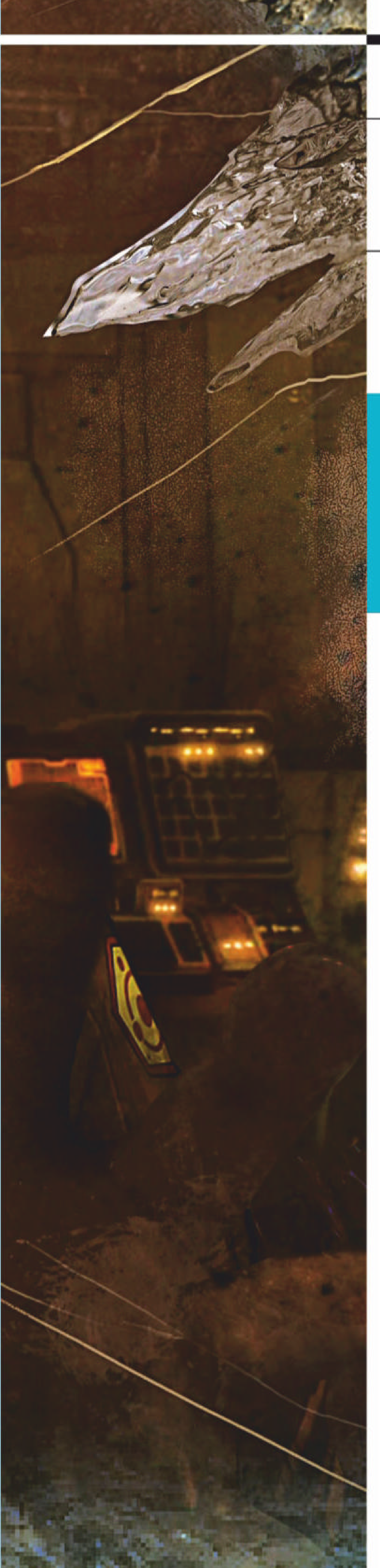
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**SEND**

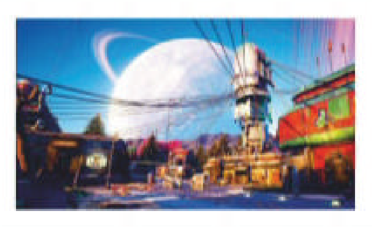
letters@pcgamer.com

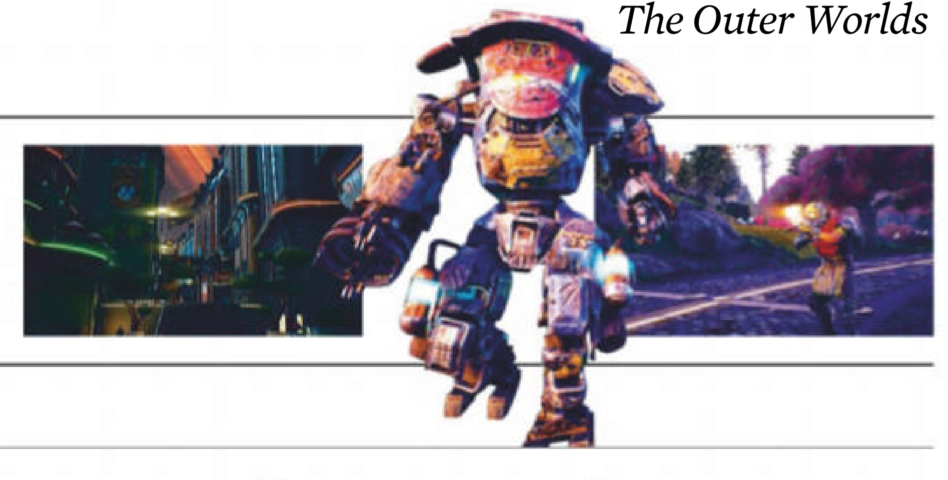
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NEED TO KNOW

| RELEASE | DEVELOPER | PUBLISHER | LINK |
|---|---|---|---|
| 2019 | Obsidian Entertainment | Private Division | www.bit.ly/theouterworlds |

# THE OUTER WORLDS

*Fallout*'s creators are back, and they're shooting for the moon

**T*he Outer Worlds* is not just sci-fi: it is exuberantly sci-fi. Blood-red trees pepper valleys of strange cylindrical rocks and alien shrubs. A spaceship rumbles overhead, coming in for a landing at the nearest spaceport. Rings grander than Saturn's carve an arc across the horizon, and a field of stars shines impossibly bright in the afternoon sky. It's a world I already know I want to explore: the colourful vistas of *No Man's Sky*, but in an RPG that looks and feels very *Fallout*, just a million miles away and pre-nuclear armageddon.**

FIRST LOOK

It's a good time to be the creators of *Fallout*. Not Bethesda, the studio behind the disappointing *Fallout 76*: it's a bad time to be Bethesda, with new *Fallout 76* problems popping up every day. But it's a great time to be Tim Cain and Leonard Boyarsky, who designed the original *Fallout* in 1997. From the hour of gameplay I glimpse in a demo at Obsidian's offices, *The Outer Worlds* looks exactly the game anyone disappointed in *Fallout 76*'s multiplayer focus will want to play: an RPG shooter, with a focus on roleplaying.

## SPACE COWBOY

There are signs that you're playing a game designed by Tim Cain and Leonard Boyarsky, if you know what to look for. One, there's never just a single path through a mission, but always the golden trifecta: fighting, talking and sneaking. Two, a unique vibe stemming from what Boyarsky calls "the combination of my dark morbidity and Tim's silliness". Three, bending over backwards to prioritise player choice in a world that's often silly, despite being all shades of gray.

"We can't seem to get away from it, not that we want to. That's what appeals to us," Boyarsky says. "The ability to not only make your own decisions, but also not having a clear-cut, 'What is the best choice, here?' That's where players have to start really thinking, 'What do I want to do as a character,' as opposed to, 'I always play the good guy, so I'm always going to pick helping people.'"

After two years of secrecy, the leads were eager to talk about everything. The demo started on the player's spaceship, which you'll acquire in the first act and then use to hop between locations on a pair of planets at the edge of humanity's settled systems. You're a bit out of place: you've been pulled out of cryosleep after what should've been a fatal amount of time on ice, and from there you'll be thrust into the midst of a bunch of corporations and outlaws vying for power.

"You were part of a ship that got lost," Boyarsky says. "You have been frozen for 70 years. If you're frozen for more than ten years, it's a really bad thing. This [scientist] figured out a way to save you, and he needs you to help him get more chemicals to help save the rest of the colonists. But you don't have to help him do that. You can go to the 'evil board', the Halcyon corporate board, and turn this guy in and see what happens if you do that."

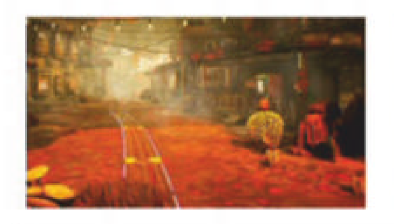
"You get a lot of money," Cain adds.

One of the two main planets has been terraformed and is kinder to human life, while the other hasn't, making it home to more alien predators. Your ship will serve as a base for you and your companions, much like *Mass Effect*'s Normandy. You'll be able to chat with them and pick up companion quests, as they all have their own reasons for tagging along with you.

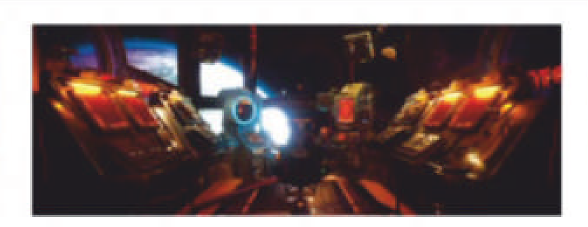
I watched them head to a frontier town to respond to a distress call, then take a mission from a researcher to retrieve his research into hunger-suppressing toothpaste. Like everyone else in *Outer Worlds*, he works for a corporation. Everything is branded, and the company that sells you lunch is likely also manufacturing weapons or drugs.

"The idea that the game has been built around is that there's silly stuff and there's »

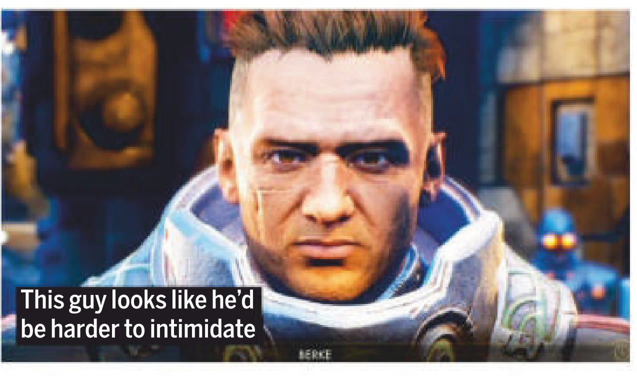
**YOUR SHIP WILL SERVE AS A BASE FOR YOU AND YOUR COMPANIONS**











This guy looks like he'd be harder to intimidate



Smile!

dramatic stuff, but it's not always like this separate thing," Boyarsky says. "This seems very silly, and hopefully humorous on the surface of it. They're making diet toothpaste, but this relates to a much bigger thing that's going on in the world."

Getting that research back involved sneaking into a facility, shooting monsters that have gotten loose and convincing the facility's guards that you're on their side… which led to their grisly death at the hands of some bandits patrolling outside.

Of course, it didn't have to play out like that. You could shoot your way in instead of sneaking, not bother talking to the guards, or ally with them instead. Or you could promise to help a captured outlaw in the facility, then betray her – opportunities for double-crossing abound.

The art style and gunplay of *The Outer Worlds* bring *BioShock* to mind. The animation and impact of shooting look a bit stiff and simple, in the way shooter-RPGs often do compared to a *Battlefield* or *Rainbow Six: Siege*. But that didn't stop it from looking fun, with tons of choices to make both in how you approach combat and what weapons you use.

There are weapons that use light, medium and heavy bullet ammo, as well as energy and melee weapons. I saw two of the latter, a lightsaber-esque sword with a green laser blade, and a scythe with a sick, dripping blade of red energy fit for a sci-fi grim reaper. The damage you do will be based on the stats of that particular weapon and your character stats.

Like in *BioShock*, weapons are moddable to do fire damage, shock damage and so on, but you can also upgrade them to higher damage tiers. There's a nice zip to laser weapons and all the graphical effects look great, like they're straight out of a pulpy sci-fi serial.

While your character has stats that affect damage, this isn't RPG combat with dice rolls governing whether your perfectly aimed shots hit or miss. Line up a headshot, and it'll hit. But for players who care more about the roleplaying than the shooting, the developers came up with a 'time dilation' mechanic akin to *Fallout*'s VATS. You can slow time to help you aim, and while time's dilated a bit of UI pops up next to the enemy you're aiming at with info like their HP. It's an easy way to target body parts, though aiming is still manual, unlike in VATS.

One of the last features they show us is a system called 'flaws', which Cain says he's wanted to put into a game for years. Flaws are character traits you can accept after something happens in the game. For example, after fighting a group of space dogs called Raptidons, you might get the option to take the flaw Raptiphobia, which will make you weaker in fights against them. Flaws are permanent, and you can have up to three of them (or five on a harder difficulty), but of course there's a trade-off: you get to take an extra perk immediately. "A flaw can be a fear of heights. There's my favourite, robophobia. We also have afraid of the dark. The game may go, 'Hey, you seem to catch on fire on fire a lot. Would you like to be susceptible to flame damage? If so, you can have another perk right now.'"



**THE ART STYLE AND GUNPLAY OF *THE OUTER WORLDS* BRING *BIOSHOCK* TO MIND**

## WHOLE NEW WORLDS

The area housing the research facility wasn't a narrow, linear path: there was definitely room to roam, with enemies and other locations to loot around the map. *Outer Worlds* isn't one massive world like today's open world games, but from what I've seen, that's a good thing. This is not a game made by 800 people, and the smaller environments look intimately hand-crafted, but are still big enough to hold sidequests and reward exploration.

One of the most exciting things the developers talked about was the freedom they're trying to bake into *The Outer Worlds*. "A lot of the map is opened up right after you get your ship, so you don't have to follow the story immediately," Boyarsky said. "There are points of no return, but we like to keep your options open for as long as possible."

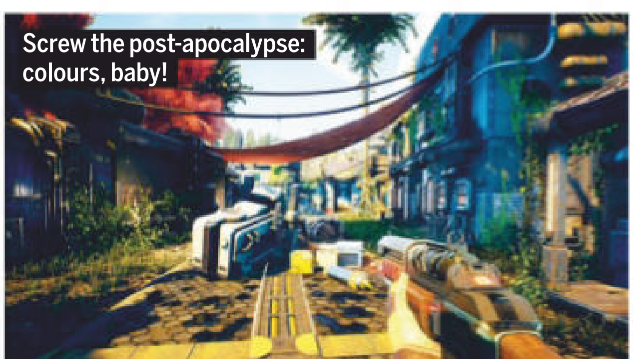
There's a degree of level scaling on enemies, but within limits, which means you'll be able to travel to difficult places early, if you want, and reap the rewards – if you don't die. It looks and feels like a proper, open-ended PC RPG, but on a more conservative budget than today's blockbusters. I've only seen a small slice, so it's hard to say how unique the many paths through the game will feel, how rewarding it will be to take the 'wrong' way and carve your own path.

But the setting has an invigorating personality to it, and I think it's high time we got a campier, more sarcastic Firefly to *Mass Effect*'s wannabe Star Trek.

***Wes Fenlon***







Screw the post-apocalypse: colours, baby!





NEED TO KNOW

| RELEASE | DEVELOPER | PUBLISHER | LINK |
|---|---|---|---|
| February 7, 2019 | Gabe Cuzzillo | Devolver Digital | www.apeout.com |

# APE OUT

## Crush and batter foes to the rhythm of your own music

**Imagine a game in which every kill is accentuated by a crash of cymbals. Every punch punctuates a hip jazzy tune, while the tempo picks up at an exhilarating pace. Particularly skillful assaults are accompanied by a cacophony of clashes and drum beats.**

And as goons surround you with guns and flamethrowers, wholly ignorant of your strength and fury, you make quick work of them. You slam, clobber and thrash until they're a mushy pulp – all the violence under a pop art sheen.

This is what *Ape Out*, a smash-'em-up fuelled by frenetic action and a snazzy soundtrack, looks like in its playable demo. Turning the brutal rampage of a gorilla into electrifying music, players can, to an extent, dictate the game's pulse. They can kamikaze through levels to the backbeat of its dynamic melody, its ebb and flow a mix of composition and carefree improvisation. While the affair can easily regress into a haphazard mess of notes and colours, *Ape Out* has offered a tight and gripping experience so far.

Given its flashy colours and rhythmic music, it's not surprising that the game has already invited comparisons to top-down shooter *Hotline Miami*. Yet *Ape Out* is a different beast altogether – stylistically distinct from the heady intensity and low drone of the former's electronic beats. Instead, it adopts the stylings of jazz, a genre often performed with unpredictable twists, within its mechanics. "One of the biggest things we have added is the dynamic drum system," said Gabe Cuzzillo, the developer behind *Ape Out*. "The drums are being played live, basically, by this procedural system that chooses different drum patterns based on the intensity of the situation." The drums beat louder, for instance, when the gorilla is pummelling the bejeezus out of its captors. Conversely, the music dampens to a whisper when it's skulking around corners or biding its time behind a door.

**"ONE OF THE BIGGEST THINGS WE HAVE ADDED IS THE DYNAMIC DRUM SYSTEM"**

This spontaneity is one of the most captivating features of *Ape Out*, and it lets the player participate in the making of the game's soundtrack. Improvisation is a core tenet of jazz, after all, and it comes as no surprise that *Ape Out*'s ambience is rooted in a jazz tune Cuzzillo was obsessively listening to.

"The game is kind of aesthetically inspired by the song called You Got To Have Freedom by Pharoah Sanders," he says. "I was trying to capture the feeling of that song in the game. The jazz thing came [into development] very, very early, and the original had jazz drumming the way it is now." Cementing this vision are the movies Birdman and Whiplash – films driven by the intensity of jazz percussion – which were released the same year he was coming up with the game's concept. Yet, Cuzzillo admits that he lacked the musical chops to put this together. He approached composer Matt Boch, who came up with a set of algorithms for *Ape Out*'s procedurally generated music.

FIRST LOOK

## BEAT-BOP

Keeping to the unrestrained spirit of jazz, *Ape Out* also features randomly generated levels. According to Cuzzillo, ensuring that players don't become too familiar with the game's layout is crucial; that may otherwise dull its aesthetic, rendering it into a scripted, even stilted performance. Moreover, the full release will also be presented in the vein of four albums. Each comes with its unique theme and style – much like a jazz musician's eclectic discography. With every punch and beat orchestrated by the player, it'll be fascinating to see how else *Ape Out* can translate its anarchic violence into dizzying performance.

*Khee Hoon Chan*



Stare upon the charred remains of your foes.

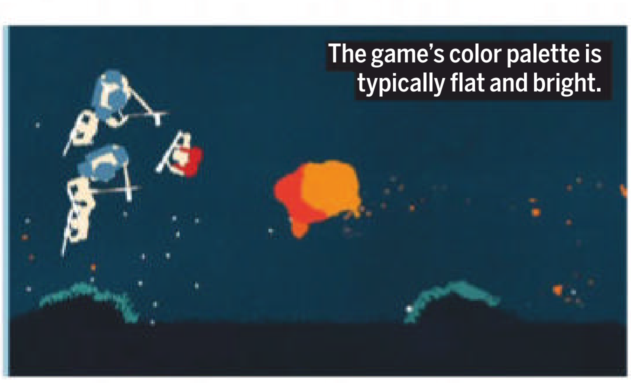


Break out of jail, quick!



The gorilla can be set ablaze to burn its captors alive.



The game's color palette is typically flat and bright.

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| | |
|---|---|
| RELEASE<br>TBD | DEVELOPER<br>Moebial Studios |
| PUBLISHER<br>Moebial Studios | LINK<br>www.aquamarinegame.com |

# AQUAMARINE


PLAYED IT

Survive an alien ocean as you search for your crashed ship

**While *Sable* has dominated the 'inspired by the French artist Moebius' game chat since E3, *Aquamarine* has been gently pottering about, sporting its own take on the cartoonist's aesthetic. You, an unnamed space traveller, have crash-landed on an ocean planet and must survive strange creatures and a significant lack of food while you try to recover your ship.**

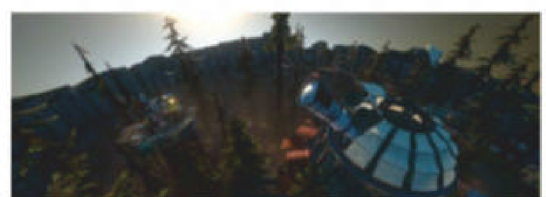
In this tiny pre-alpha demo of the roguelike food is scarce – frustratingly so – but the crystals which you use to fuel your escape pod's shields and movement seem abundant. As a result I tend to starve to death but with a full tank of fuel. My second most common demise is via the electrified tentacles of a sort of water-dwelling duck-billed… caterpillar? They like to fight me over crystals so I try to use the turn-based move system to stay out of their way.

I know that developer Moebial intends the full game to be a tactical experience, geared around collecting and managing scarce resources, and discovering the planet's secrets. In this super early build I haven't been able to explore far (partly because of all the dying), so I'm not sure how much of the ecosystem and planet is in place. But what I have seen so far is eye-catching, and I keep finding myself returning to see if I can find a way to deeper waters.

*Philippa Warr*







NEED TO KNOW

| RELEASE | DEVELOPER | PUBLISHER | LINK |
|---|---|---|---|
| 2019 | Mobius Digital | Annapurna Interactive | www.mobiusdigitalgames.com |

# OUTER WILDS

Explore a tiny solar system again and again

**You're a Hearthian, a curious, four-eyed amphibious being from a small planet in a weird solar system full of mystery. Not so much a civilisation as a single village, the Hearthians inhabit a crater on their planet's surface, using wooden walkways and shacks to build up and around the limited space. They also build rockets. And you're their latest astronaut.**

My first experience of *Outer Wilds* was with the free alpha build that would go on to win the Seumas McNally Grand Prize at the 2015 IGF Awards. While the final version boasts a new art style and other improvements, the core idea is still the same. You travel this strange solar system, exploring its idiosyncratic planets and uncovering its many secrets. And then you die, and do it all over again.

Maybe you die because you're stranded on a planet with no atmosphere, and your oxygen has run out. Maybe you die because you went too far into the unknown and met something vast and deadly. Or maybe you die because you're experiencing the moments before your sun goes supernova and you ran out of time. Whatever the case, you wake up back at the beginning. It's Groundhog Day, but with space exploration instead of a town in Pennsylvania.

And so you set off to unravel various mysteries, again and again. As you explore, your ship's log updates with your progress – the things you've found and the rumours you've discovered. Once you leave your village, it's up to you where you go and what you do, but, by talking to the villagers, you'll get a sense of what *might* be worth your time. Equip your signalscope, for instance, and you'll pick up the instruments of other travellers – Hearthians who set off to explore before you, most of whom are content to sit on distant planets, playing a jaunty tune.

One might mention an odd signal, which you can follow – perhaps with help from your camera probe – to find somewhere new. Breadcrumbs lead to breadcrumbs which lead to revelations. When you wake up for the next loop, the information is all catalogued, letting you pick up where you left off. Perhaps if you pick at the right thread for long enough, you'll find a way to end the loop entirely.

## STRANGER DANGER

The reset isn't just an arbitrary gimmick. Many of the planets change or deform over time. Brittle Hollow is being slowly destroyed by the meteors that erupt from the active volcanoes of its moon. Exploration is dangerous early on, and then impossible as the planet breaks apart over the course of the loop. The Twins, meanwhile, are two planets joined by a flowing column of sand. As time progresses and the sand pours across, the caverns of Ember Twin are buried, while the mysteries of Ash Twin start to emerge.

PLAYED IT

The rumours are just hints at what you may find. Often, I'd find myself ignoring a trail of clues in order to go explore another phenomenon – partly to uncover new leads, but mostly because it looked interesting. This isn't some vast, procedurally generated universe. The handful of handcrafted planets ensure that wherever you land, you're sure to find *something*, even if it's just a weird rock.

Four years after first playing *Outer Wilds*, I'm still intrigued by it. Not just for its mysteries, but for its folksy charm – the way the Hearthians look more like park rangers than scientists, or the soundtrack and the way it mixes sci-fi synths with an acoustic guitar hook that feels more at home by the campfire. I look forward to uncovering its mysteries. Mostly, though, I'm excited to spend more time on these quirky, endearing worlds.
*Phil Savage*

**IT'S GROUNDHOG DAY, BUT WITH SPACE EXPLORATION INSTEAD OF A TOWN**





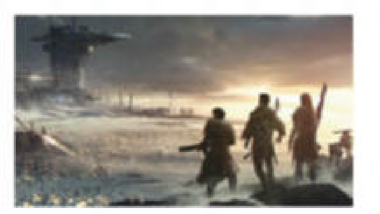
This skeleton is begging to be explored.

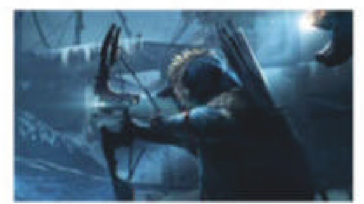
Travellers camp out in space, playing their tunes.


Despite appearances, this *is* a spaceship.




The ancient Nomai write in pretty spirals.







**NEED TO KNOW**

| RELEASE | DEVELOPER | PUBLISHER | LINK |
|---|---|---|---|
| Playtests in 2019 | Midwinter Entertainment | Improbable | www.scavengersgame.com |

# SCAVENGERS

## An exclusive hands-on with the multiplayer survival game

**There are some intimidating enemy factions in *Scavengers*, a strange hybrid that's part-survival game, part-competitive shooter and part-cooperative exploration game. There's the Scourge, an alien horde that sprouts from the ground, and the Outlanders, a band of rogues hardened by an eternal winter. Neither is as powerful as a bear.**

FIRST LOOK

It's a single bear that finds our lowly group; four survivors shot down from a space station to explore an Earth claimed by decades of catastrophic climate change. It's a single bear that chases us until we run into another group of players in a shootout with an Outlander camp. As the final blizzard moves in and the extraction point is marked 500 meters away, it's that single bear that leaves us for easier prey and cleans up a camp of both NPCs and live players while we scoop up some of their spoils and sprint to the space van.

I'd like to say we did it on purpose, but it was a happy accident, the result of overlapping AIs set free in a massive world and set alight with poor human judgement. It's the kind of fun mess typically reserved for singleplayer open world games, but now a mess we made and experienced together.

As one of the first people to play *Scavengers* outside of Midwinter Entertainment, even in its very early state, you don't need to squint too hard to see what the team is aiming for. Think of it like a match-based survival game where you, in a team of four, explore a massive, randomly generated winter wasteland scrounging for supplies, working towards a common goal with the other couple dozen players scattered about.

We could've, maybe should've, helped Team Bear Food. We wouldn't have collected enough shards without their help, but in a stressful moment we saw an opportunity to take a bigger share of the credit for our unified goal and run. The team that makes it out with the most shards is declared the winner and given a larger helping of rewards. And the fewer people that make it out alive, the more you and your pals get. So can you blame us?

But if you take an adversarial approach, chances are you won't have the manpower to gather enough resources before the final storm moves in and forces you to head back to space. The tension between choosing whether to help or hinder strangers is at the heart of *Scavengers*, and the stresses of surviving a perilous environment make it much more than a decision influenced by whether you're in the mood for competition or cooperation.

### MAKING CAMP

As the former creative director and studio head of the *Halo* series at 343 Industries, Josh Holmes knows how thrilling first-person combat is made. But as a founder and CEO of Midwinter, his goals for *Scavengers* are more nuanced than ever, even with a much smaller team.

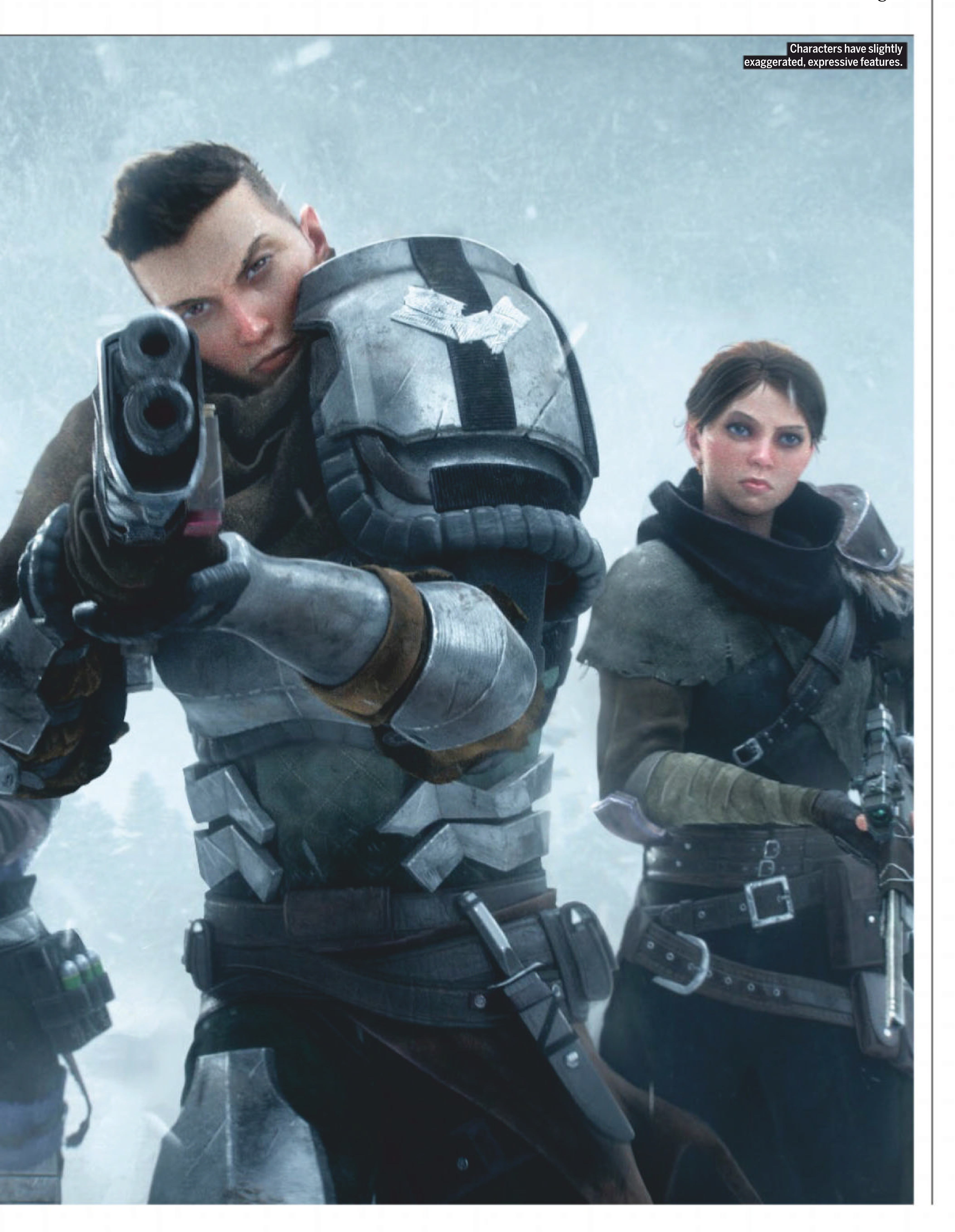
"Our mission as a studio is the creation of togetherness, which is that feeling that you get when you work together to overcome big obstacles and accomplish great things," Holmes tells me.

*Halo 5*'s Warzone mode is the most obvious point of comparison, and one Holmes invokes often. For the unfamiliar, it's a 24-player mode in which taking out AI enemies is as important as keeping enemy players at bay. It's possible to finish a match without bothering with other players. Coordination matters the most, and Holmes is carrying the same ideas into *Scavengers*' help-or-hinder ethos.

Characters are divided into classes and each come with unique abilities and weapons that you can improve over the course of a match with enough salvage found in abandoned settlements and on enemy corpses. I tried out a character that »

**WE SAW AN OPPORTUNITY TO TAKE A BIGGER SHARE OF THE CREDIT FOR OUR UNIFIED GOAL**





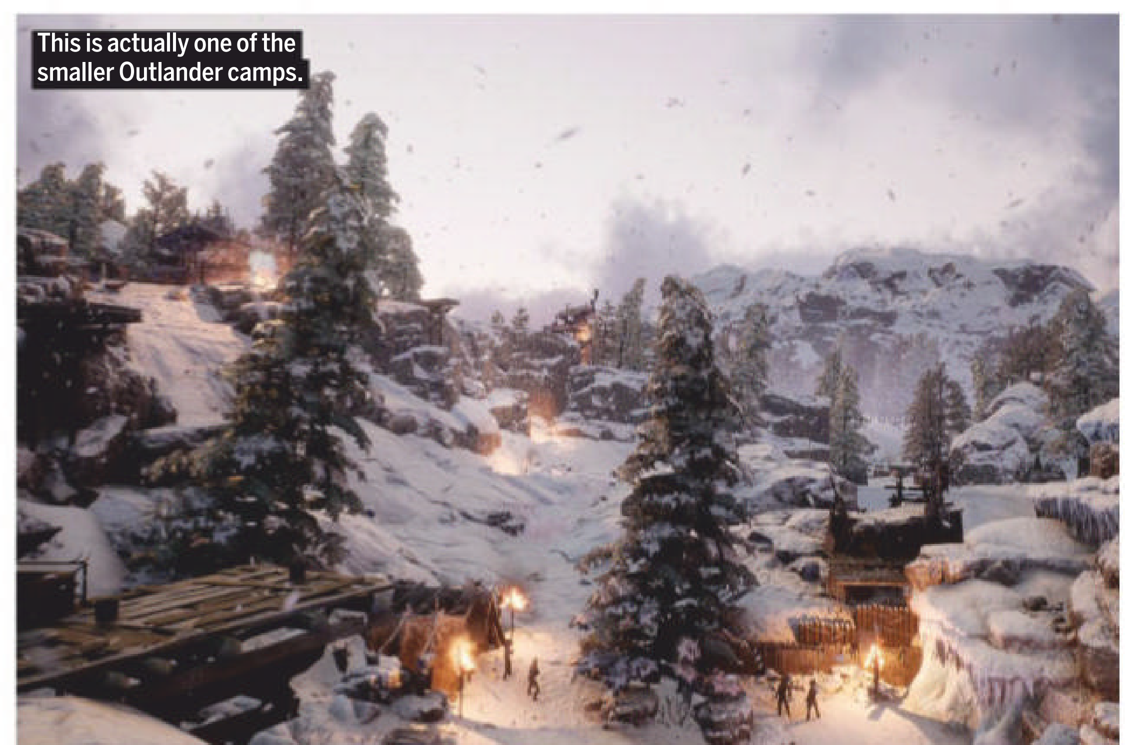
Characters have slightly exaggerated, expressive features.

Outlanders never skip arm or forge day.

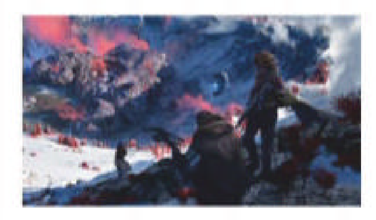
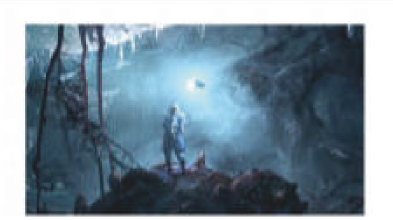
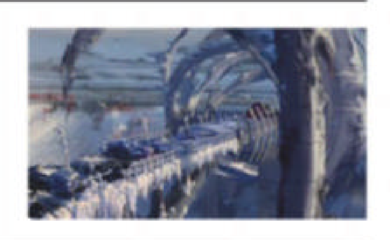




Can you find the food in this image?



This is actually one of the smaller Outlander camps.



could deploy a bubble shield, and another that could place a campfire that didn't just heal, but also warmed my team. Yeah, there are survival systems in there, too.

Holmes knows the stigma that comes with survival games. Babysitting meters, farming materials, constructing items from recipes – all that's streamlined in *Scavengers*. All you need to pay attention to are your warmth and hunger, and both food and fire are plentiful so long as you're willing to take on an enemy encampment or, if you're desperate, take out another team for their supplies. Holmes sees those meters as important pressure points. "The survival mechanics are going to press upon you in a way that forces you to take advantage of the materials and options that are available to you."

The intent is to push players into making tough decisions, to keep them moving, to make sure there's never a state of absolute contentment. I'm told *Scavengers* is meant to be paced like a thriller, where players are always on edge, a game where uncomfortable silences punctuated by bursts of noise and violence (and bears) are the norm.

The importance of staying fed and warm tends to push players towards violence or cooperation with one another, but it's not always enough. If *DayZ* is proof of anything, it shows that interesting and ambiguous social systems quickly devolve into shooting one another on sight.

It's why *Scavengers* is being developed as a living game, to be updated regularly with drastic meta changes, which means daily, weekly and seasonal incentives to play both aggressively and peacefully will lead to rewards of all types: cosmetic, XP, and whatever else makes the final cut. Holmes and company make it clear that *Scavengers* will change often and as much as possible to best support the tenuous social relationships and systemic chaos that makes their project so compelling.

There will be big meta changes, too, according to founder and UX and art director Daryl Anselmo. "We're talking fairly large scale, creative event-driven type stuff, " he says. Holmes drives it home: "We're unafraid of change." He explains, "For a live service to be really compelling, my opinion is you have to be willing to make those big changes and share them with the community." Anselmo says that while the release notes will include the incremental, small-percentile tweaks and changes to otherwise invisible systems, they want players to adapt to big changes. *Scavengers* is all about responding to change in a moment's notice, so why not expand that to the beloved meta?

**THE INTENT IS TO PUSH PLAYERS INTO MAKING TOUGH DECISIONS**

## WEATHERING THE STORM

In my final match, an ally spots another team busy with a Scourge harvesting event, fighting off waves of fleshy enemies in order to get some shards. I let my team know, and we go on the offensive for no reason other than greed. Three go down without trouble, but the fourth gets away.

He stalks us throughout the match, following our tracks in the deep snow, taking potshots on occasion. My teammates tell me it's Daniel, the animation guy. We never see where the shots are coming from, but they keep coming. I'm on edge, unnerved. Daniel, the animation guy, stalks his prey from the shadows, screwing with us.

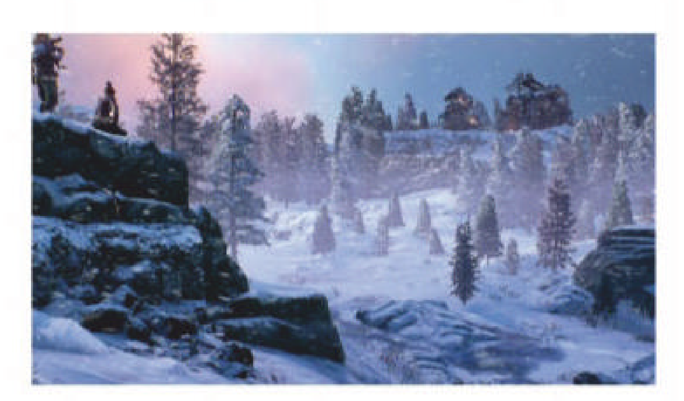
Nowhere near our collective shard goal, we run into a Scourge nest and kick off our own harvesting event. It doesn't look like we'll thin the horde before the blizzard moves in and kills us all, but who appears out of nowhere to help? That stalker, Daniel. It takes me a minute to realise what's happening and I'm severely tempted by instinct to pull the trigger. But I don't. We survive, all thanks to Daniel. Aesop has a fable about this, I'm sure.

This wacky, systemic, social experience comes from a game that's so early it's barely hanging together. I can't imagine how it'll play a year from now.

"We have the bones of a dynamic weather system in place. We have the bones of a dynamic time of day cycle in place. We have the bones of deformable snow terrain in place," says Anselmo. "We have the basic foundations of our characters, we have enemies, we have a whole set of modular pieces."

It's true: the bones are there, they work and they're capable. Midwinter is shy about *Scavenger*'s current status, but it's in a better state and far more interesting than most Early Access releases. Even so, Midwinter is making sure those bones are easy to iterate on and rearrange before any sort of public playtests, due sometime in 2019. But even this early, I can't say I've played anything quite like *Scavengers*.

***James Davenport***

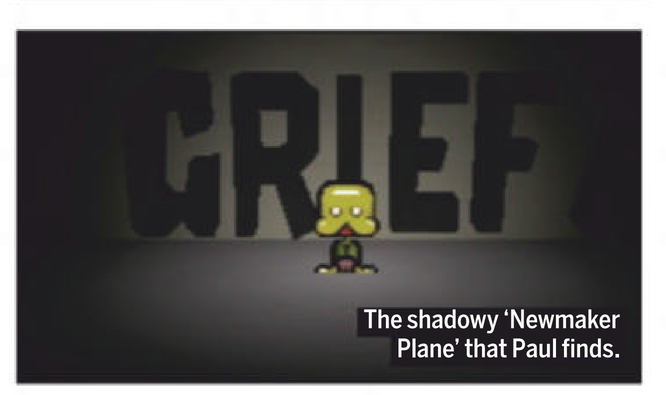



Steer clear of storms, but worry about bears first.

*Petscop: 3D Fan Recreation*

Nobody knows what Pen is doing here.






The shadowy 'Newmaker Plane' that Paul finds.



The devs are taking care to be faithful to the source material.



**NEED TO KNOW**

| RELEASE | DEVELOPER | PUBLISHER | LINK |
|---|---|---|---|
| Unknown | GDIE | In-house | www.bit.ly/petscop3d |

# PETSCOP: 3D FAN RECREATION

## One of the strangest creepypastas is being brought to life

**In March 2017 a video was uploaded to YouTube titled 'Petscop' with a description that read, "The game I found." Little did I know that what was shown would go on to become one of videogames' greatest mysteries, one that would inspire a small group of indie developers to recreate it.**

For them, it all began with that single anonymous video upload in which a mysterious narrator, who would come to be known as Paul, discusses a PlayStation game he found. As he explores this strange and unfinished game, he finds and catches pets by solving a series of rudimentary puzzles. Despite this innocuous beginning, it soon becomes clear this isn't your average game as things start to take a darker turn and Paul, following the instructions on an accompanying note, finds a shadowy underworld full of bizarre references and themes.

Over a year later and Petscop has become a hotly debated web series with thousands of people around the world wading in with possible theories as to the game's origins and meaning. For one indie game developer, though, who goes by the name BubbleDerp, that wasn't enough. "When I first watched Petscop I was in love," says BubbleDerp. "I had wondered if there were any recreations or stuff like that yet. The previous weeks I was messing with 3D in GameMaker. I decided I had nothing better to do and why not make my own?"

***PETSCOP 3D* CONTINUES THE TRADITION OF ITS PROGENITOR TO CAPTIVATE AND CONFUSE**

*Petscop: 3D Fan Recreation* was the result of that decision – a game that aims to simulate the experience of the web series, offering fans a chance to retread Paul's footsteps through the strange, eerie story. I have to admit, it was a surreal feeling to actually be playing Petscop. From the familiar sounds of the PlayStation startup sequence, to the bright visuals and cute soundtrack, this is an authentic recreation. It was difficult not to mirror the actions of Paul, as I followed his trail through the first level catching pets as I explored.

It's widely accepted that Petscop is not a real game, in that it was never developed back in the '90s with the intention of being released on the PlayStation. As BubbleDerp tells me: "There is a lot of things that a PlayStation could not do, like the child library where Paul's movement is predicted perfectly and, well, coding that onto PlayStation hardware would be very hard, to say the least."

### URBAN LEGEND

It wasn't long into the game until my knowledge of the series was tested, as

PLAYED IT

unless you know what it says on the note that Paul got with the game, you can't progress past the first building. This note, along with a weird message about shadow monster men, includes details of a code and where to enter it, at which point the music stops. An eerie silence descended around me. In that moment I realised Petscop hadn't lost any of its claustrophobic atmosphere in its transition to videogame form. Much like other internet folklore, such as Slenderman, Petscop's journey into reality from the obscure message boards that propagated it increased rather than decreased its potency.

*Petscop 3D* continues the tradition of its progenitor to captivate and confuse. The biggest question remains, though: how will the game end? "I have not thought about how the game will end," says BubbleDerp. "I feel like we are getting close, however." Truth is, nobody knows when or how Petscop will end, meaning *Petscop: 3D Fan Recreation* is intertwined in that fate and committed to a journey that, hopefully, leads to the answers everyone seeks.

*Jon Calvin*



The game sees you catching 'pets'.

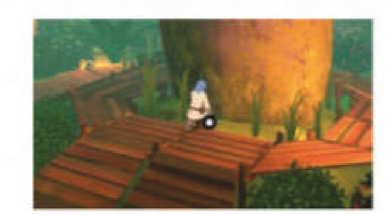
The glasshouse is one possible route.

To the glasshouse

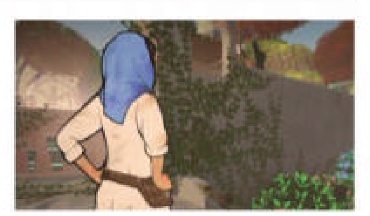
**NEED TO KNOW**

| RELEASE | DEVELOPER | PUBLISHER | LINK |
|---|---|---|---|
| 2019 | inkle Ltd | In-house | www.inklestudios.com |

# HEAVEN'S VAULT









## Become a history detective in inkle's archaeological adventure

**Inkle's sci-fi archaeology adventure, *Heaven's Vault*, is one of the most promising detective games that I have played in recent years. Instead of a murder to solve, you're playing as archaeologist Aliya Elasra, investigating sites of historical interest and using inscriptions and relics to discover an ancient civilisation.**






The demo build focuses on an overgrown ruin, hidden away on a lush moon. As well as artefacts to collect for further study, you will discover inscriptions which you can use to build a little library of translations for the ancient civilisation's hieroglyphic language.

When figuring out the language I was using a mix of context, guesswork and common sense at first. For example, I'd eliminate any of the translations which resulted in nonsense. Then I'd see whether any of the suggested combinations fit with the function of the object I'd found it on.

Later on, the interface lets you see similar hieroglyphics when translating a new word. It also drops your previous translations into spaces where the symbol recurs, letting you see if it still makes sense. Inkle says you won't ever be entirely sure if your translations are correct, but the main character, Aliya, can become confident enough to add a translation to her dictionary.

The ink engine beautifully supports a fluid exploration of these clues, and allows them to feed back into Aliya's understanding of a place. Translating a sign as 'garden of the dead' meant she viewed the ruin as a graveyard from then onward. Missing that translation out in a second playthrough made for a far less certain exploration of the space.

**THERE'S A GENTLE UNCERTAINTY RUNNING THROUGH THE DEMO**

My demo was short, set in one area, so it's hard to get a sense of how those uncertainties will build over a broader game, and how far you can stray from a specific interpretation of the ancient world. That said, I played it through several times and managed to have a different experience each time as a result of making slightly different choices.

### INFER-ABLE SKILLS

Navigating the space took a little getting used to and I found it hard to select the object I wanted to interact with at times. But the team has continued working on the game, and I think that ironing out camera glitches will go a long way towards solving those navigational oddities.

Overall, I'd say it's one of the games I'm most excited about for 2019. There's a gentle uncertainty running through the demo, which I love. It's about inference, rather than completing a tick list and that harmonises perfectly with the story. I mean, what sounds more fallible and uncertain than a tale of humans trying to figure out what other humans were up to?

*Philippa Warr*



# 2019 PREVIEW

Looking ahead to another great year of PC gaming.

*By Andy Kelly, Phil Savage & Philippa Warr*

# DOOM ETERNAL

**The shotgun has a grappling hook. Let us repeat that. The *shotgun*. Has a *grappling hook*. In the debut footage shown during last year's QuakeCon, we see the returning Doom Slayer's newfound mobility in action, as he jumps backwards off a ledge, grapples towards a floating cacodemon and gives him both barrels in midair.**

Naturally this is very exciting, and not just because it's a shotgun with a grappling hook. It shows that id Software is giving us more of what made 2016's *Doom* so great: up-close-and-personal gunplay that encourages you to always push forward, closer to the horde. *Doom*'s melee system was a revelation, and so the fact that *Doom Eternal* will offer more ways to jump into the fray suggests that id knows exactly what it's doing.

We're on Earth for the sequel, but – surprise – the planet has been ravaged by the demon horde. All of your enemies are 'destructible', meaning you'll get to see the armour, limbs and features of imps, hell knights, spiderdemons and other hellspawn be obliterated as you shoot. More interesting than the advanced hell-gore, though, is the fact that some of those demons may be other players. An optional system will let groups of players invade your game – taking control of demons and using their powers to try to bring you down.

## ID SOFTWARE IS GIVING US MORE OF WHAT MADE 2016'S *DOOM* SO GREAT

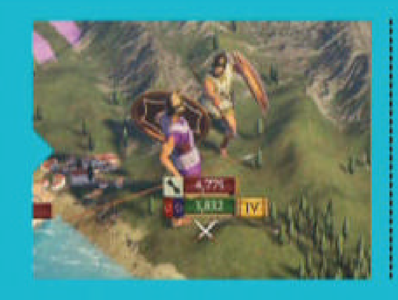
Always bring a chainsaw to an arm mounted flamethrower fight.

### PSYCHONAUTS 2

After raising $4 million through crowdfunding Tim Schafer is making a sequel to his cult platformer. *Psychonauts 2* will continue the story of Raz, a gifted psychic with a dream of joining the titular Psychonauts, a team of elite secret agents.

### IMPERATOR: ROME

The next epic from Paradox promises to let you change the course of history in the ancient world. Featuring trade, rebellions, provinces, barbarian attacks and countless other deep systems, this is a strategy game on a grand scale.



### IN THE VALLEY OF GODS

The next game from *Firewatch* creator Campo Santo is something different. Set in '20s Egypt, you play as Rashida, a filmmaker hunting for fame and fortune among the ruins and sand dunes of the desert.

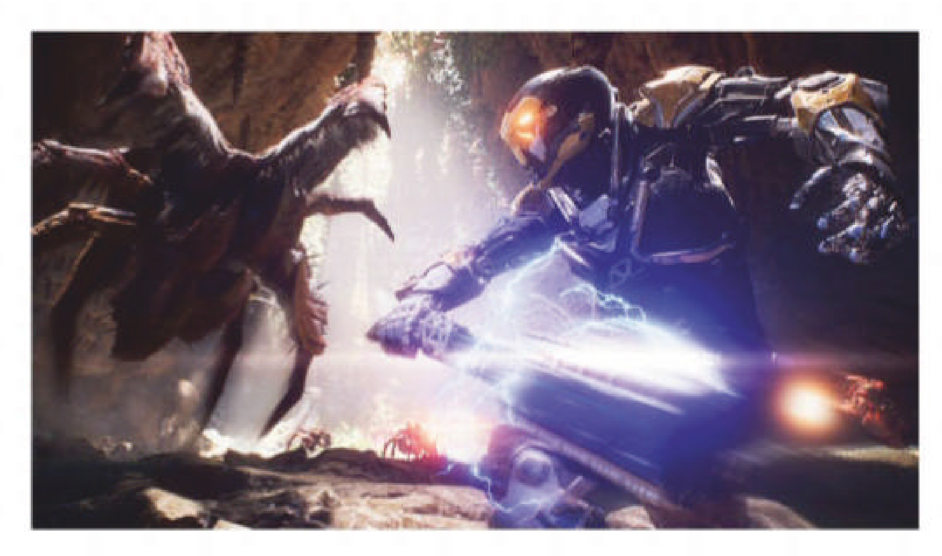
### UNTITLED GOOSE GAME

"It's a lovely morning in the village... and you are a horrible goose." This perfectly encapsulates the character of the goose: a wilful jerk who terrorises villagers by stealing hats, stealing sandwiches and honking loudly.



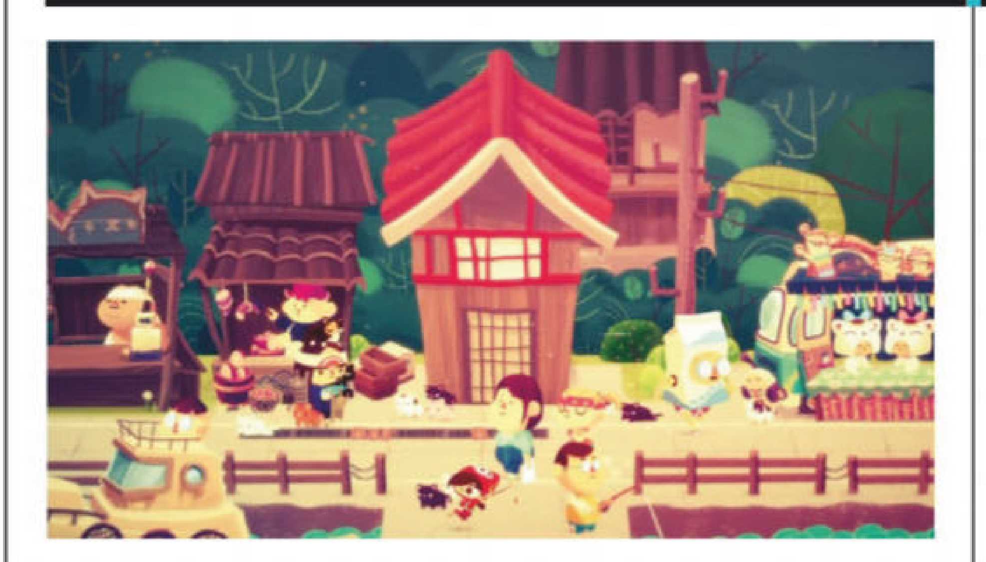

## TROPICO 6

You're the president of a banana republic, and must build your island paradise while dealing with the requests of external superpowers and internal factions, and the ever-looming threat of election day. Do you use your powers for good and create a utopian haven for your people, or do you just line your own pockets – making empty promises and corrupt deals to keep hold of power by any means necessary? Whatever you choose, you'll still need to build housing, industry and infrastructure across lush, vibrant archipelagos. In other words, it's a *Tropico* game – albeit one that's set to be bigger and better than its predecessors.



## ANTHEM

BioWare's cooperative shooter wants to steal your attention away from *Destiny 2*, *Monster Hunter: World* and all of the other games that would rather you think of them more as an ongoing hobby. You play as a Freelancer, using your exosuit to kill bugs and beasties, big and small, and a rocket booster to fly around lush sci-fi environments. Between missions, you return to a central hub to progress the story, building relationships with various NPCs. Unlike in other BioWare games, however, those relationships will remain strictly platonic – as if that's ever stopped thirsty communities from shipping anyone and everyone.



## MINEKO'S NIGHT MARKET

This adorable-looking game puts you in charge of a tiny, odd crafting business at the local weekly market. Between markets you'll spend your time exploring the land, meeting new folk and gathering resources for your business. The curios you make and sell will fund your own shopping expeditions in the market, letting you check out minigames, try food and buy collectibles. The stage shows sound particularly interesting as *Mineko's Night Market* is aiming to be a celebration of Japanese culture – that means taiko drumming, kabuki theatre, sumo wrestling and karaoke are all on the menu. Oh. And the world is full of cats. Cats EVERYWHERE.



## RAGE 2

The first *Rage* was an uncomplicated, dry shooter set in an incredibly brown wasteland. For the sequel, id has enlisted the services of *Just Cause* developer Avalanche – a studio known for its explosive action. As a result, *Rage 2* looks ridiculous in the best possible way, favouring creative violence across a vast open world. You'll ride across this post-apocalyptic world, causing trouble with an array of weapons, tools and, yes, a lethal boomerang. Throw in vehicular combat and superpowered special abilities, and you have all the ingredients for an FPS romp that promises an equal measure of chaos and fun.

### WASTELAND 3

After successfully resurrecting the *Wasteland* RPG series back in 2014, developer inXile is taking another shot at it. But rather than another dry, dusty desert, this sequel is set in the frozen wastelands of a bleak post-apocalyptic Colorado.



### SPELUNKY 2

*Spelunky 2* has a lot to live up to given that it's the follow up to one of PCG's highest-scoring games of all time. The sequel promises new items, allies and enemies, and new environmental possibilities. New ways to die, basically.

### SYSTEM SHOCK

While *System Shock 2* is regularly held up as a PC classic, the 1994 original doesn't get nearly as much love. But thanks to an atmospheric graphical overhaul by developer Nightdive, this remaster might finally give it a chance to shine.

### WARGROOVE

Inspired by Intelligent Systems' *Advance Wars* series, and developed by *Starbound* creator Chucklefish, this strategy game will feature tactical turn-based combat, cooperative play and a series of campaigns featuring 12 distinct characters.

2019 PREVIEW

It's a time of warring beards, and the people who wear them.

# TOTAL WAR: THREE KINGDOMS

**Creative Assembly is taking its strategy series to ancient China. *Three Kingdoms* is the first large-scale historical *Total War* since 2015's *Attila*, and it's set to change the template established by previous games – shifting the focus away from statecraft and towards relationships. Instead of picking a faction, you select a specific warlord and work to unify China under your banner.**

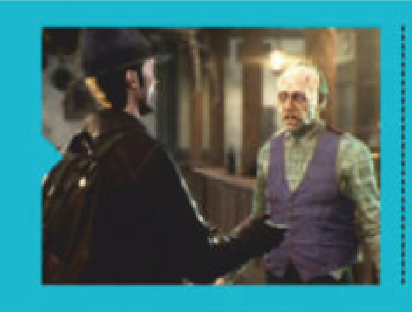
It helps that the Three Kingdoms era of third century China is known for its larger-than-life heroes, thanks to the 14th century novel Romance of the Three Kingdoms. Creative Assembly is taking the legends established in the book, and incorporating them into the campaign.

In addition to the shift in focus, Creative Assembly is overhauling diplomacy. *Three Kingdoms* will feature a more advanced negotiation system which allows you to make specific, granular demands – right down to a leader's own horse – and a new coalition system lets you create more informal alliances with other warlords.

*THREE KINGDOMS* WILL FEATURE A MORE ADVANCED NEGOTIATION SYSTEM

### THE SINKING CITY

Developed by the team behind the brilliant *Sherlock Holmes: Crimes and Punishments*, this detective adventure is set in '20s America. People are being possessed by an evil force and you, a private dick, have to get to the bottom of it.

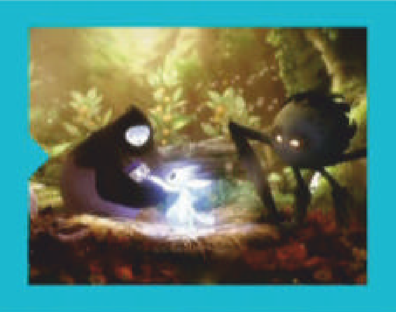


### BERNBAND

*Bernband*, a flappy-handed lo-fi project set in a futuristic city, is the sequel to *Bernband*, a flappy-handed lo-fi project set in a futuristic city. *Bernband* (the new one) looks to be more ambitious in scope and with lots of great detail to the world.

### ORI AND THE WILL OF THE WISPS

This sequel to cult favourite *Ori and the Blind Forest* features large, vivid environments, challenging platforming and a Metroidvania structure. Arachnophobes be warned: there will be a giant spider.



# CONTROL

**You play as Jesse Faden, the new director of the Federal Bureau of Control – a job she earned after acquiring a transforming gun. Rather than spend her time overhauling the Bureau's Byzantine hiring policies, she must instead fight to take back control of its HQ from an invading force called the Hiss.**

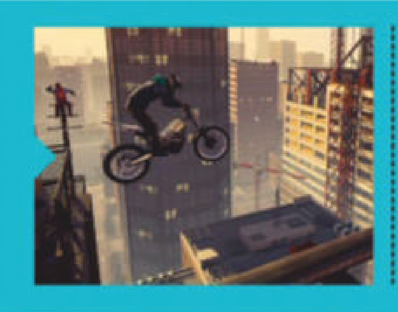
While a stark, brutalist office building may not sound like the most varied setting for a third-person shooter, the Bureau's HQ has some tricks up its sleeve. It's a shifting space, full of secrets. In one section of the demo we saw at last year's E3, Jesse comes across a light switch that, when pulled, teleports her to an old motel. In another, she finds a Bureau employee, who must watch a refrigerator at all times so that it doesn't "deviate".

This is a Remedy game, so there's fighting, too. But while your abilities will help you deal with the Hiss, they're also useful for exploring hard-to-reach areas of the House, adding an element of nonlinear exploration to proceedings.

**THE BUREAU'S HQ HAS SOME TRICKS UP ITS SLEEVE. IT'S A SHIFTING SPACE, FULL OF SECRETS**

### THE SETTLERS
Classic strategy game *The Settlers* is returning to PC courtesy of Blue Byte, and creator Volker Wertich is back as creative director. Harvest materials, build settlements, create supply lines and lead your cartoon army to victory.

### TRIALS RISING
After 2016's disappointing *Blood Dragon* mashup, *Trials* is going back to its roots. The gimmick this time is that the stages are set around the world, built around landmarks such as the Egyptian pyramids and the Eiffel Tower.



### CODE VEIN
"What if *Dark Souls* was more anime?" That seems to be the question behind the creation of *Code Vein*, a *Souls*-a-like RPG featuring a cast of characters that seemingly got lost on their way to a gothic fetish party. Videogames, eh?

### AFTERPARTY
From the studio behind cult hit *Oxenfree* comes *Afterparty*, a game about two deceased besties outdrinking Satan. They say it's to get out of spending an eternity in Hell. We say it sounds like an average post-deadline team drinks scenario.



## ANNO 1800

After exploring the near and far future, Ubisoft's city-building series is returning to the past. Set during the Industrial Revolution of the mid-to-late 19th century, *Anno 1800* will focus on technology, manufacture and the sprawl of emerging urban environments. While it will offer the series' usual mix of construction, exploration, diplomacy and warfare, Ubisoft BlueByte has also revealed some interesting new features. The blueprint mode, for instance, lets you plan your layout before you begin construction. It means you can easily save space for expensive buildings, staking out the most efficient spot without having to rearrange a chunk of your city.



## MECHWARRIOR 5

Like last year's *BattleTech*, *MechWarrior 5: Mercenaries* will put you in command of a unit of freelance mech pilots, taking on missions on behalf of various factions of the BattleTech universe. You'll need to grow your company across the sandbox campaign, earning scraps from minor factions in order to build your reputation and armoury. *Unlike* last year's *BattleTech*, however, here you'll actually be in the cockpit of your mech, fighting in real time. It's the first singleplayer *MechWarrior* game in nearly two decades, and promises greater detail in both its systems and presentation – bringing the BattleTech universe to life.



## METRO EXODUS

The *Metro* series of games has always been defined by their claustrophobic setting, tense atmosphere and meticulous pacing. That's why the third game in the series is such a departure, in every sense. In *Exodus*, we follow returning protagonist Artyom as he leaves the tunnels of Moscow's metro system and sets off east, on a year-long journey to find a new, less radioactive home. Rather than tight, detailed corridors and controlled linearity, *Metro Exodus* will be larger and more open, with a focus on exploration and survival. As you journey, you'll face new monsters, factions and hazards with each change of season.

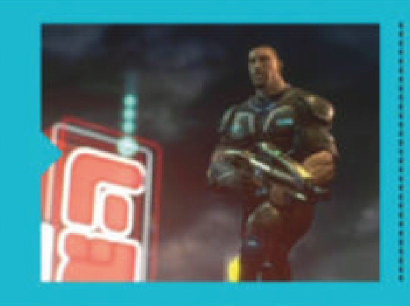


## HYPNOSPACE OUTLAW

Set in an alternate universe 1999, you'll spend your time in *Hypnospace Outlaw*'s internet simulation helping to police that den of filth, the 'World Wide Web'. SLAP copyright violation notifications on tiny children's art projects! SCOUR incredibly bright and extensively animated personal websites for signs of cyberbullying! TEND to your virtual pet's every need! ENJOY the thrill of midi music coming from goodness knows where! WONDER whether you might actually be the bad guy in all of this. FEAR the impending horror of the millennium bug. And you can do it all without even needing to dig out that AOL free internet CD.

### CRACKDOWN 3

Originally due out in 2016, Microsoft seems confident that the open world carnage sim will finally release in February. *Crackdown* feels like a bit of a relic in this day and age, but hey, it's got a gun that shoots black holes. Maybe that's enough.



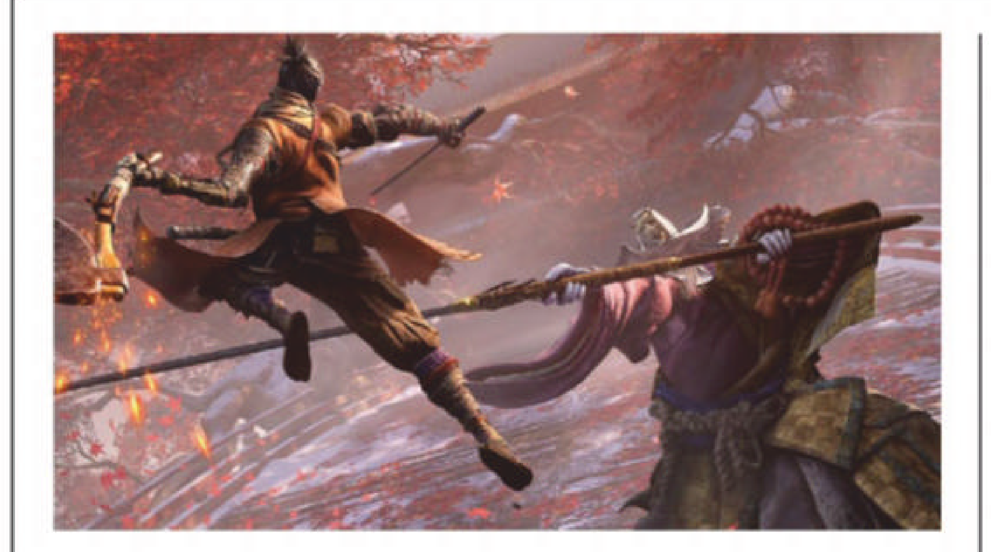
### MY FRIEND PEDRO

A 2D shooter about balletic slow-mo gunplay. As you jump, flip and spin through corridors, you can dispatch your enemies in intricate ways, kicking props, ricocheting bullets, and just generally building a montage of gifable violence.



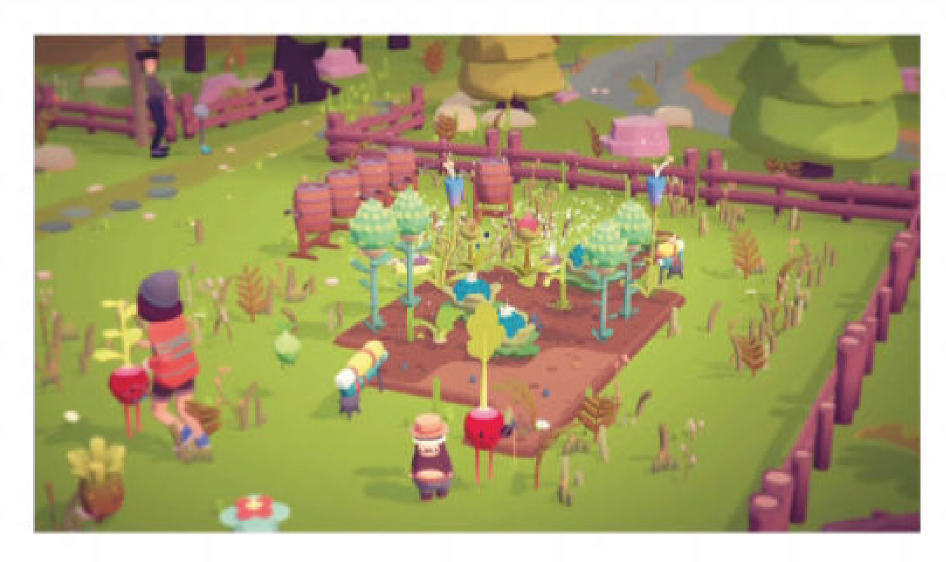
### GRIFTLANDS

It's about grifting! It's set on a land! It's *Griftlands*! Klei's RPG is all about talking yourself out of situations as you search for fortune across a morally flexible world. When your silver tongue fails you, JRPG-style combat will help you finish the job.



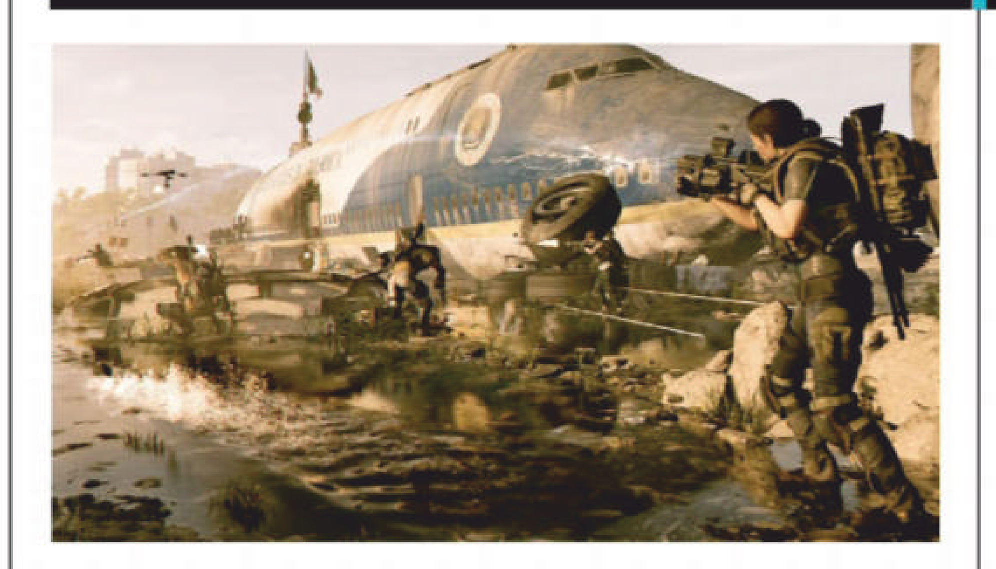
## SEKIRO: SHADOWS DIE TWICE

After three *Darks Souls* games (and a *Bloodborne*), FromSoftware is trying something slightly different. Rather than a painstaking marathon, *Sekiro: Shadows Die Twice* sprints along at a much faster pace. Combat is quicker, more deadly and more generously checkpointed. There are no stats, there's only one weapon, and you're armed with a grappling hook and a toolbox of prosthetic gadgets. You're as fragile as you are deadly, but can use your stealth and manoeuvrability to silently take down your foes. And, if it does all go wrong, a revive mechanic lets you spring back to life after your enemies have grown bored of staring at your corpse.



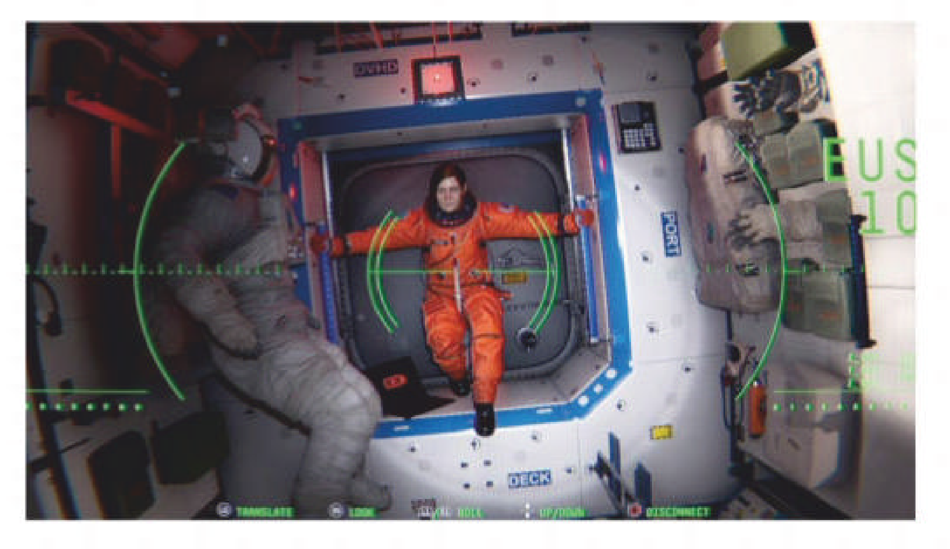
## OOBLETS

Perhaps the most gif-friendly game in existence, *Ooblets* takes inspiration from *Pokémon*, *Harvest Moon* and *Animal Crossing*. The result is a farming game where you grow creatures from seed, then train them to compete in dance-offs. It's the little details which really make *Ooblets* a charming prospect, though. Instead of health bars, the dance-offs revolve around gaining or losing ego. Instead of living in a backpack, ooblets trail after your character like ducklings. And instead of new hairstyles just popping into existence in character customisation, they are sprayed onto your head as if they're coming from a can of whipped cream.



## THE DIVISION 2

Ubisoft's sequel trades the New York winter for Washington D.C. in the summer, letting you and your pals fight through a more open space, taking advantage of longer sightlines and flanking opportunities. Ubisoft is keen to stress that, despite the setting, there are absolutely no political overtones here. Hey look, it's a downed Air Force One! Despite a muted launch, *The Division* earned itself a fanbase, and improved a lot over its many updates. *The Division 2* hopes to build on that momentum with free DLC episodes planned throughout its first year and a more robust endgame that will let you specialise your character towards a particular playstyle.




## OBSERVATION

This sci-fi thriller is being developed by *Alien: Isolation* alumni, which shows in its distorted computer interfaces, eerie atmosphere, and creeping sense of dread. You play as an AI in charge of a stricken space station, working with (and, perhaps, against) an astronaut trying to escape. Think 2001, but from HAL's perspective. Cameras are placed around the station, and these are your eyes and ears. You'll help Dr. Emma Fisher fix the station and figure out what happened to it, but something seems to be infecting your systems, with the repeated words 'BRING HER' spookily compelling you to do something presumably unpleasant.

### SHENMUE III

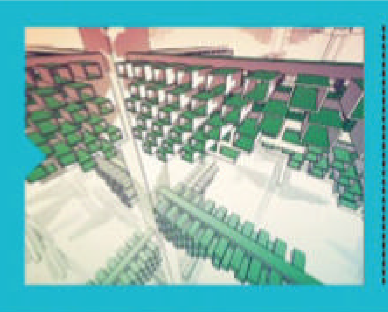
Almost 20 years after the series halted, Yu Suzuki is picking up where *Shenmue II* left off. This epic follows Ryo Hazuki on a quest for revenge, and is set in rural China. As well as deep combat, it'll feature life simulation elements.

### RESIDENT EVIL 2

Capcom has taken its horror classic and remade it with an over-the-shoulder camera and ghoulishly detailed graphics. It's not just a visual overhaul: even some of the puzzles have been tweaked, so diehard fans will enjoy something new.

### MANIFOLD GARDEN

Sure, we may have been writing enthusiastically about William Chyr's Escher-esque puzzle game and its imminent release for *cough cough* years, but we really do think 2019 might be the year it emerges from its stunning, geometric cocoon.



### BOYFRIEND DUNGEON

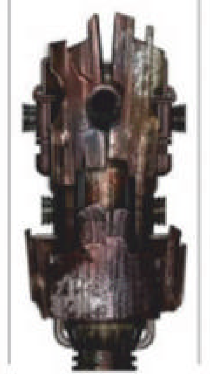
"If you like that sword so much, why don't you just MARRY IT?" is the premise of *Boyfriend Dungeon*. Well, perhaps not marry, but at least have a fun fling with it, because instead of romancing traditional NPCs you'll be wooing your armoury.

In space, nobody can hear Space Big Ben go 'bong'.

# SUNLESS SKIES

**The strange gothic horror of Failbetter Games' storytelling ascends to the heavens in *Sunless Skies*; a sequel to the superbly eerie *Sunless Sea*. Instead of navigating dangerous waters, you must traverse the High Wilderness – an industrial empire in space – exploring odd ports and trying to manage the terror levels of your crew.**

We tinkered with the Early Access release early in 2018 and found a quest line involving costumes for geese, visited an Art Deco port, and cured terror with games of cricket. Rather than a linear narrative, *Sunless Skies* is a game about pursuing an ambition. You explore, gather crew, amass resources, and drink in thousands of snippets of evocative prose.



If you're familiar with *Sunless Sea*, it's also useful to know that, although *Sunless Skies* will feel familiar in terms of tone and interface, there have been many improvements to the core loops. Particularly important is that it cuts down on repetition of journeys and does a better job with storage via a bank system.

*SUNLESS SKIES* WILL FEEL FAMILIAR IN TERMS OF TONE AND INTERFACE

### AGE OF WONDERS: PLANETFALL

The 4X series heads to space. Lead your people out of a dark age as you compete against other sci-fi civilizations in a race to build a utopia – be it through diplomacy, conquest, or just building destructive weapons.

### STAR WARS JEDI: FALLEN ORDER

Respawn is taking a break from making *Titanfall* games to tackle the Star Wars universe. Set shortly after the events of Revenge of the Sith, you play as a Padawan Jedi who managed to survive Palpatine's purge.

### SABLE

Its Moebius-esque art style marked *Sable* out as one of the most beautiful games of E3 2018. Being able to explore that gorgeous desert landscape and its handcrafted landmarks on hoverbikes feels like the icing on a very good-looking cake.



### WATTAM

More of a toybox stuffed with surprises than a traditional experience, *Wattam* lets you possess a cast of odd folk and make them interact in weird, fun ways. This includes stacking giggling poops, and using an exploding hat.

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THE PERMAFROST HAS MELTED, UNLEASHING A TERRIFYING ALIEN VIRUS.

AN EERIE MIST ROLLS ACROSS THE PLANET, COMPELLING PEOPLE TO WANDER INTO THE OCEAN, WHERE THEY EMERGE AS HIDEOUS, MUTATED MONSTERS.

THE WORLD IS A MESS, AND IN TURN-BASED STRATEGY GAME *PHOENIX POINT*, IT'S YOUR JOB TO CLEAN IT UP.




# FROM THE ASHES

Rebuild a broken world in **PHOENIX POINT**, a bold new sci-fi strategy game from the creator of the original *X-COM*. *By Andy Kelly*




**hen the game starts in 2047, most of humanity has been killed, abducted, or transformed into alien monstrosities," says lead designer Julian Gollop, who is perhaps best known for creating the original *X-COM* series. "But there are a few isolated groups that have managed to survive."**

"The Phoenix Project organisation you're the leader of is very diminished," he says. "You're being attacked on all sides by various different powers. But out of the ashes of the devastation of the virus, which comes to be known as the Pandora virus, there comes a number of charismatic leaders who claim their factions will be able to rebuild the world and make it better."

Julian Gollop has been making strategy games for decades, from *Laser Squad* and *Rebelstar Raiders* in the '80s, to bringing the legendary *X-COM* series to the world's attention in the '90s. That's the old *X-COM*, with a dash after the X, rather than Firaxis' recent (and equally superb) reboot, *XCOM*. But *Phoenix Point* seems to be bigger, grander, and more ambitious than anything he's done before, and I ask what inspired him to start the project.

"I wanted to pursue what I call my vision of a grand strategy game, which involves tactical turn-based battles as well as a wider strategic conflict," he says. "I love this multilevel, multiscale aspect to strategy games, which is heavily influenced by some of the board games I used to play when I was much younger. Before computer games existed, in fact.

"I also wanted to revisit some of the ideas I was developing in the original *X-COM* series. For example, in *X-COM: Apocalypse* there was this idea of a living city with multiple factions that you had individual relationships with. This was something I wanted to explore a lot more."

**BELOW:** You will need to make use of the free aim system to take down these beasts.

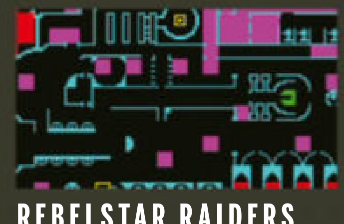
## DEAD RISING

Gollop also wanted to bring back the feeling of dread and tension that permeated the *X-COM* series – of never knowing what horror lies around the next corner, or if your squad will make it out alive. "That was very much a part of the tension and excitement of the tactical battles," he says. "In *Phoenix Point*, we have a mutation system that can generate hundreds of enemy variations, so you are never sure what you're going to be facing.

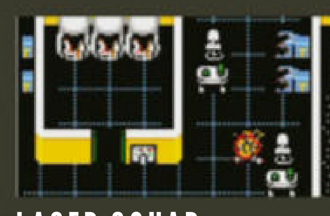
"I also wanted to bring some of the RPG elements from the original *X-COM* to *Phoenix Point*," Gollop continues. "That sense that you're creating and nurturing a squad and carefully building them up to a force that's going to save the world. We want the player to have to decide whether they're going to risk their best soldier in a battle or save them for when things get tougher later."



## MEMORY LANE *Julian Gollop's greatest hits*



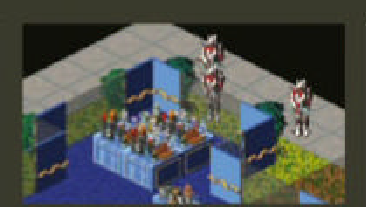
**REBELSTAR RAIDERS 1984**
An early turn-based strategy game, *Rebelstar Raiders* is a multiplayer sci-fi game where players control opposing squads of soldiers.



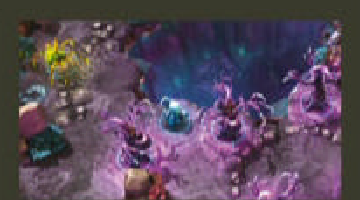
**LASER SQUAD 1988**
Another turn-based game, this time featuring a variety of tactical missions including assassination, hostage rescue and infiltration.



**UFO: ENEMY UNKNOWN 1994**
Also known as *X-COM: UFO Defense* in North America, this was the world's first taste of what would go on to become a hugely popular series.



**X-COM: APOCALYPSE 1997**
A deeper, more complex take on *X-COM*, with self-adjusting difficulty and rival factions, including the alien-worshipping Cult of Sirius.



**CHAOS REBORN 2015**
A remake of *Chaos: The Battle of Wizards* (an early Gollop project), this strategy game features warring wizards and challenging combat.



Combat is vital, but there are other ways to solve problems too.

While the core of the game will be its tense, deep, strategic combat, story is also an important factor in *Phoenix Point*. But it's more than just window dressing: it actively informs the flow of the game, and how you interact with the various parties in it: be they friend, foe or a bit of both.

"We've spent a lot of time building the world," says Gollop. "We've produced a number of short stories for [crowdfunding] backers, which have been well received and give the game a rich backstory. In the game, much of the story will be revealed through the research system – as it was, in fact, in *X-COM*. And there are the factions, who have different ideas about how to save the world."

New Jericho is a faction led by a powerful leader named Tobias West. He was, before the outbreak, the CEO of a major arms manufacturer and private mercenary group, and has created a militaristic society where soldiers have high status. If combat's your thing, side with them.

"Everybody is expected to serve in West's personal army, and their approach to the Pandora virus is that it has to be eliminated by eternal vigilance," says Gollop. "So they're very strict about killing infected people, and any trace of the infection they detect is dealt with without prejudice. Tobias West is firmly against any kind of corruption of the human genome."

## CULT HIT

Very much opposed to New Jericho is the creepy, cultlike Disciples of Anu, a religious order which believes that an alien godlike figure has come to save the Earth in the form of the Pandora virus and its mutations.

"They think that if they embrace it, they'll evolve with it," says Gollop. "They've developed a technology that lets them contain the virus so that anyone infected doesn't become completely alien, which they think will allow humanity to become better than itself. The downside is that a lot of these experiments fail, causing a lot of death and suffering. But people join them because their leader, the Exalted, is highly charismatic. She's a mutant herself and has these powers, showing people what they could become."

And then there's the Synedrion, a highly ecological, anarchistic alliance. The have a technology that allows them to repel the virus, and believe they can reclaim the land – even if the seas are still infected – and

**"WE'VE SPENT A LOT OF TIME BUILDING THE WORLD"**



*Phoenix Point* will feature both infantry and vehicle combat.

rebuild society. "They want a society built on freedom, democracy, and other ideals they think have been neglected by previous civilisations. They think trying to completely defeat the alien menace, like New Jericho is trying to do, is a futile task."

**"YOU DO HAVE A LOT OF CHOICE IN WHAT BATTLES YOU PURSUE"**

All three factions have their own agenda, technology, and proposed solutions to the alien menace. And you, as an independent party, can use different, often risky methods to get this information for yourself. "You can choose to ally with a faction, defending their settlements to curry favour," says Gollop. "Or you can attack them and just steal their resources and technology.

"You can also trade and exchange research and technology peacefully. So that aspect of the game, including from a storytelling perspective, is a lot richer than *X-COM*. We also have plans for the story beyond even this first game, about what happens next in the world of *Phoenix Point*."

The beliefs of the factions means you'll be navigating dangerous diplomatic waters. "Your actions will have consequences and could lead to a faction turning on you," says Gollop. "But if they're under attack and you choose to intervene, they might trust you more. However, if you defend a Disciples of Anu base and not a Synedrion one, because you're more interested in forming an alliance with the former, the latter may react badly."

You also have to consider the structure of each faction before you go charging in looking to make a deal.

## SIDE BY SIDE

*The factions you'll meet in* Phoenix Point

### DISCIPLES OF ANU

A religious order which believes that weaponising the Pandora virus and its mutations is the key to rebuilding the world. The virus was, according to its scripture, retribution for humanity's sins.

### NEW JERICHO

A militaristic faction, New Jericho's goal is destroying the Pandora virus and reclaiming the planet. It believes in human purity, rejecting any form of mutation and restoring order through force.

### SYNEDRION

This faction believes that, having learned from past sins, the world can now be rebuilt as a utopian society, with renewable energy, freedom from persecution and a focus on developing science and technology.




"With the Disciples of Anu, you can't just march in and talk directly to the Exalted. You have to progress through several levels of their, let's say, priest hierarchy to reach her. The Synedrion are changing leadership a lot, as they're having these internal debates, so you might talk to different people with different demands."

And the faction you side with, if you decide to side with one, can also directly affect how you win the game. "Each faction has its own solution to the alien menace," says Gollop. "They haven't developed it at the start of the game, however, so you can choose to ally with one of them and work with them to achieve their goal. There's also a fourth solution to the game besides siding with one of the three factions, which you can pursue without creating any alliances, but it's more difficult to pull off."

The game's tense turn-based combat will have you making equally interesting and important decisions, albeit on a smaller, more immediate scale. One of the most exciting features is how, thanks to the weird mutating properties of the Pandora virus, enemies are procedurally generated from dozens of different parts, and you're never sure what it's going to throw at you next.

"The alien mutation system works at a strategic level," says Gollop. "For example, there are arthropod-type enemies with primitive claws and shields. But if you beat them a few times, and decisively, they'll go through a mutation process. So next time you face them, they might be able to use human weapons, or develop different types of attacks such as poisons. And the more they defeat you, the more successful the mutation will be. This will require players to constantly change and adapt their combat tactics in battle."

Another interesting feature is the free aim system. Similar to VATS in *Fallout*, this lets you target specific body parts of an enemy, opening up a realm of tactical possibilities. "This is important tactically because a lot of the aliens' abilities stem from their various mutated body parts," says Gollop. "If you have, say, a crab-type enemy with a shield and a gun, you can disable its arm to knock the gun out of its hand, which limits it to using a close-quarters shield bash. Some mutations have weak spots to deal extra damage, too. If you attack an enemy's leg, it might stop it from moving as quickly.

**ABOVE:** This post-apocalyptic Earth is a grim place, but you can save it from total destruction.

**BELOW:** The mutation system means you never know what enemy will come at you next.

"When you're fighting a monster, the free aim system is more important than ever," Gollop adds. "They're like organic battleships with multiple weapon systems and you have to try and pick a strategy based on that. Do you want to take its weapons out? Or focus on the most vulnerable part of its body? These things are all a very important part of your tactics in battle."

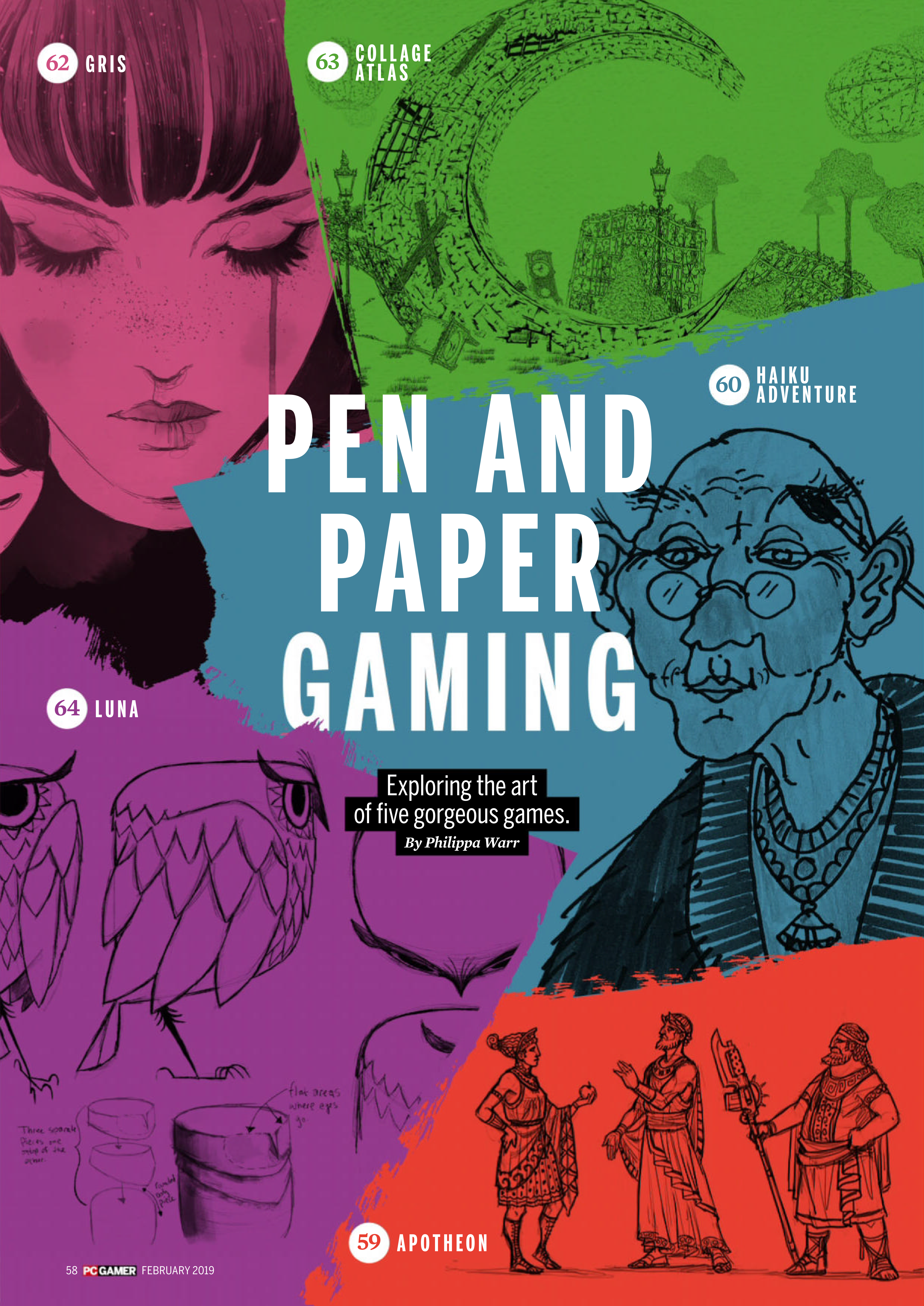
## PICK AND CHOOSE

Grand strategy games are obviously an influence on *Phoenix Point*, and I wonder if players who want to focus on that side of things can choose to automatically resolve battles. "You can't automate battles, because they're really the essence of what the game is all about," says Gollop. "However, you do have a lot of choice in what battles you pursue. It's a much more free-form mission system than you'd normally find in a game like this. You can instigate battles if a faction has something useful: an aircraft factory, say. You land your squad, fight the local defenders, and steal the aircraft. That's your choice."

And, in an example of things coming full circle, it's clear in *Phoenix Point*'s slick animation and interface that Firaxis' *XCOM* has inspired Gollop in some ways. "I love those games," he says. "I really like the sense of drama they manage to get from a turn-based game. There's some impressive 3D graphics and camera work in there. A nice interface too, which works smoothly with a mouse and keyboard or a controller. *XCOM 2* in particular had great character customisation. They obviously streamlined a few things compared to the old *X-COM* games, most of which I think were good decisions. And they managed to reach a really wide audience with those games, too."

It's great to see Gollop return to the genre that made his name. *Phoenix Point* is set for release in June and it'll be interesting to see how it stacks up against Firaxis' take on *XCOM*. The added layer of grand strategy – warring factions, diplomacy, espionage, and so on – will hopefully sit comfortably alongside the more granular, turn-based decision-making of a battle. With such a rich, storied history of making strategy games, from the ZX Spectrum to the present day, I reckon Gollop can pull it off. ■






# PEN AND PAPER GAMING

Exploring the art of five gorgeous games.

*By Philippa Warr*

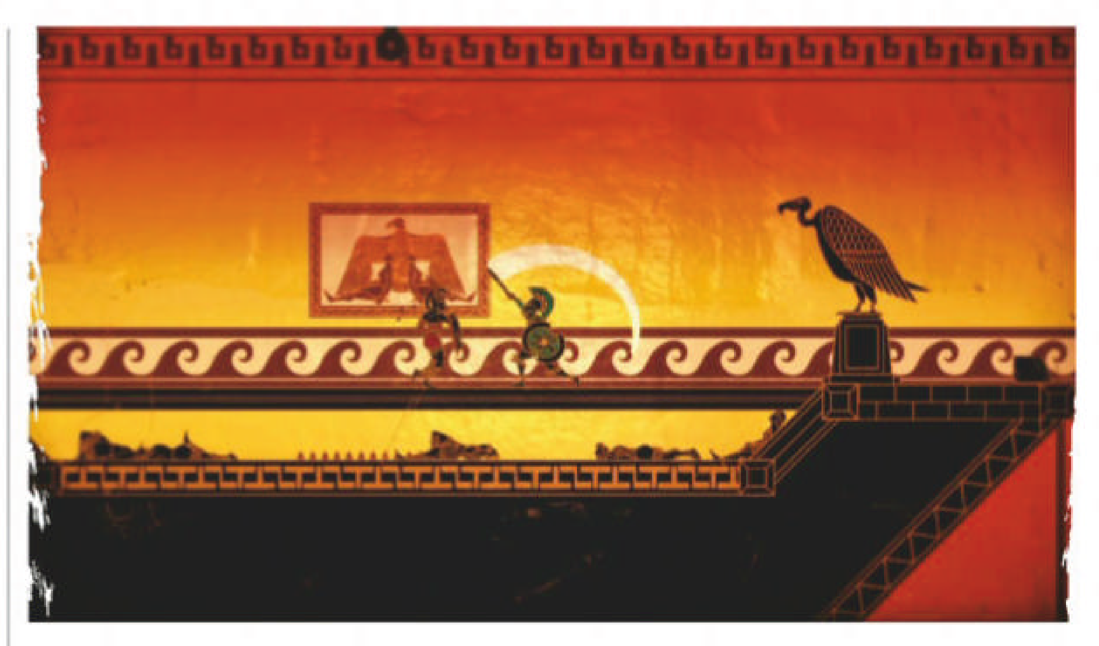
# APOTHEON

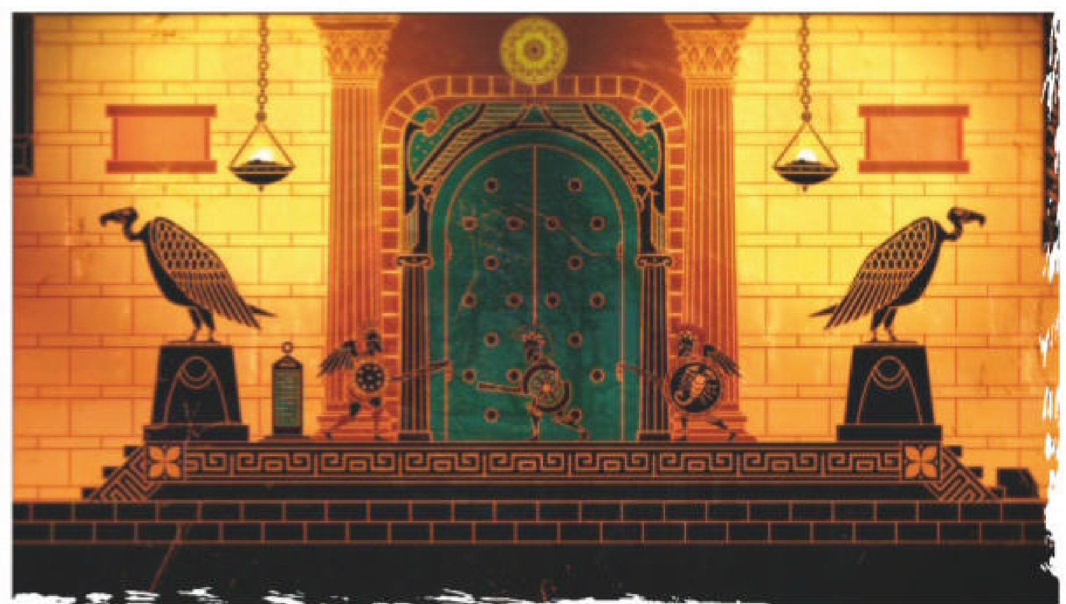
## Ancient art by way of sci-fi gods

**Alientrap's *Apotheon* illustrates its ancient Greek story with imagery influenced by black figure pottery. But before becoming a 2D platformer clad in the motifs of ancient Greece, *Apotheon* was an open world sci-fi project set on a space station; a story of godlike beings manipulating humans from on high.**

"Eventually we cut away the space parts and just decided on making a game about Greek mythology itself," says Alientrap cofounder and creative director, Jesse McGibney. "By that point, it seemed like a no-brainer to use the art style that was most associated with those myths; black figure pottery."

For a while McGibney was torn between black figure style (black figures on a red background) and red figure style (a later style with red figures on a black background). "In the end we settled on black figure for readability, but I took a lot of design cues from the more complex styles of the red figure art," McGibney says.





**RIGHT:** The finished game's art style is instantly recognisable even though it needed some tweaks to be player-friendly.

**BELOW:** The earlier idea was futuristic space soldiers meets antiquity.




The team actually experimented with rendering the game on a pot "with curving rotating edges and all that", says McGibney. "This was obviously needlessly complicated, but there's still some visual effects we held onto." One of these is the vignetting at the corners of the screen. "Another was the subtle normal mapping applied to the screen, which dynamically moves with the in-game light sources to give a clay-like texture to everything and helps reinforce the style a bit more."

Although characters were abundant in the pottery, he struggled to find references to use for environments. "At most, there might be a tree or a small part of a building," McGibney explains. "I ended up combining the geometric patterning and interpreting real-world plants, statues, landscapes and architecture to get the effect across. It was a much bigger design challenge than the characters were by a long shot."

### THE PERFECT SOLUTION

Colour was another challenge. Expanding the colour palette to include blues, yellows and greens helped differentiate areas, and little pops of colour could help highlight objects and other characters. *Apotheon* also diverges from the pottery in that its scenes have some visual depth – a foreground and a background separated by tinted fog – which helps with legibility.

I ask why games don't use the style more often – it would seem a natural fit for 2D platforming projects. "My only speculation is that many games want to create their own vision of things (as we did when we first started the project)," says McGibney. "Sometimes they might overlook the perfect solution right at the root of their inspiration." ■

# HAIKU ADVENTURE

## Reading the fine prints



***aiku Adventure* is the work of James Morgan and Ceri Williams. It channels their conversations about growing up on islands and their shared connection with nature into a game. The art style draws heavily on the Japanese ukiyo-e woodblock print tradition and, although still in development, will be featured in an exhibition at the William Morris Gallery.**

The exhibition, which runs from Feb 26 to May 26, is fitting since it was an earlier show at the gallery that brought ukiyo-e prints into the equation. "The prints seem to acknowledge that capturing a truly accurate representation of nature is an impossibility," says Williams, "and instead shows a stylised view that gives a fleeting impression of how the natural environment is experienced." He adds that the absence of a single point of perspective also means the image can be explored by the viewer's eye as if they were moving around the scene instead of at a fixed point.

> **"EMBELLISHMENTS MUST 'BELONG' IN THE GAME WORLD WE'RE BUILDING"**

At the same time, Williams and Morgan had started to look at haiku poetry and how it aims to capture an experience of the natural world. "Stylised ukiyo-e prints offer postcard snapshots of nature, while haiku poetry attempts to remove the 'self' entirely to try and get closer to the truth [of] nature. Alongside this, Shinto worships the forces of nature by imbuing every part of nature from animals, trees, plants and even mountains with its spirit, the kami."

Research included visits to ukiyo-e displays and a printing workshop during Williams' honeymoon to Japan. Other valuable resources were the V&A's collection, the British Museum's Hokusai: Beyond the Great Wave exhibition, and the website www.ukiyo-e.org, which collects hundreds of thousands of prints in a database. "Primarily we want to faithfully get across the feeling of what it's like to look at the natural world through the framing of ukiyo-e," explains Williams.

One of the biggest challenges is figuring out the composition of a scene. "The original prints we reference have really precise framing, which is less easy to capture when parallax and animation causes constant changes as players explore scenes," says Williams. To resolve this, the pair is focusing on how players are encouraged to pause in specific places so they experience particular framings.

### CREATING ATMOSPHERE

Another consideration was how to add a sense of ukiyo-e printing's physicality to a digital product. Adding visible woodgrain patterns to larger areas of colour is one way of doing this. Williams used to work at a joinery so he's been back to raid their wood offcut pile, scanning these offcuts to create a texture library, which can then be used in the game.

**BELOW:** Haiku and ukiyo-e combine in Small Island Games' exploration of nature.

"Where we have cliffs, a straight grain overlaid horizontally can represent strata in the rock without needing to add extra linework or additional tones and colours."

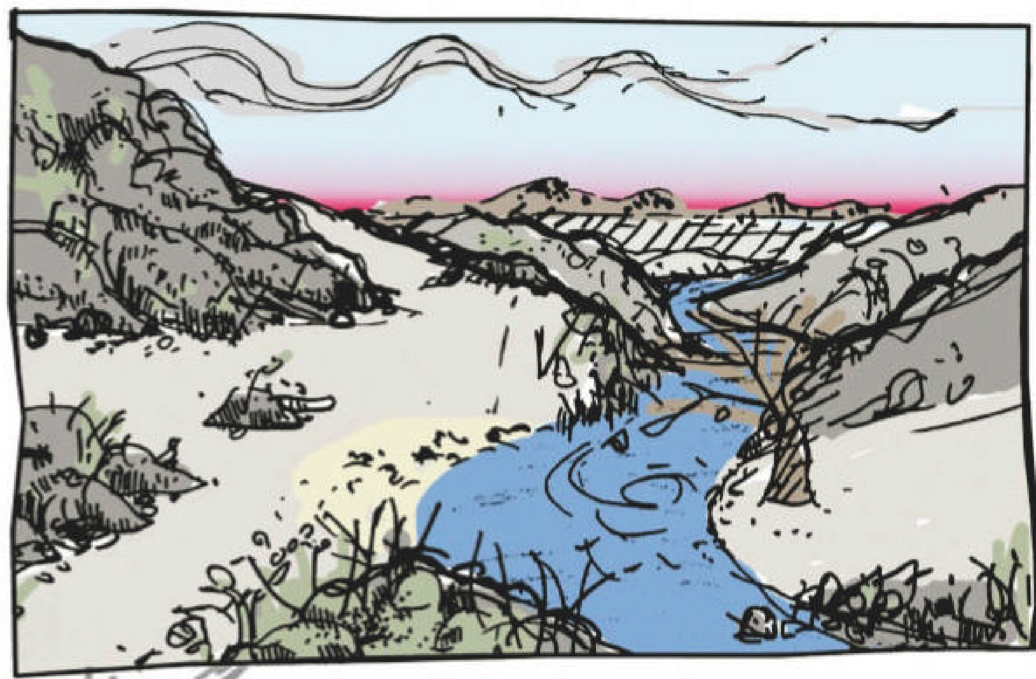
But tapping into the traditional artforms of another country carries the risk of appropriation or exoticism. I ask how Williams and Morgan are handling this.

"In deciding to use Japanese artistic and cultural traditions as the key references for the game we're well aware that proper research, understanding and testing are needed," says Williams. "We've been careful to represent ukiyo-e as not just a visual medium but a tradition with a culture and history attached. Above all, a key principle for us has been to make sure that including or referencing any element in the game should never be solely aesthetic – embellishments must 'belong' in the game world we're building."

The studio is also in early talks with a Japanese publisher who has offered to provide cultural advice during development. "We think working with people who deeply understand aspects of the cultural context this artform exists within is really important. And as two British developers we had to admit to ourselves that it's easy to misinterpret things when working outside our native culture."

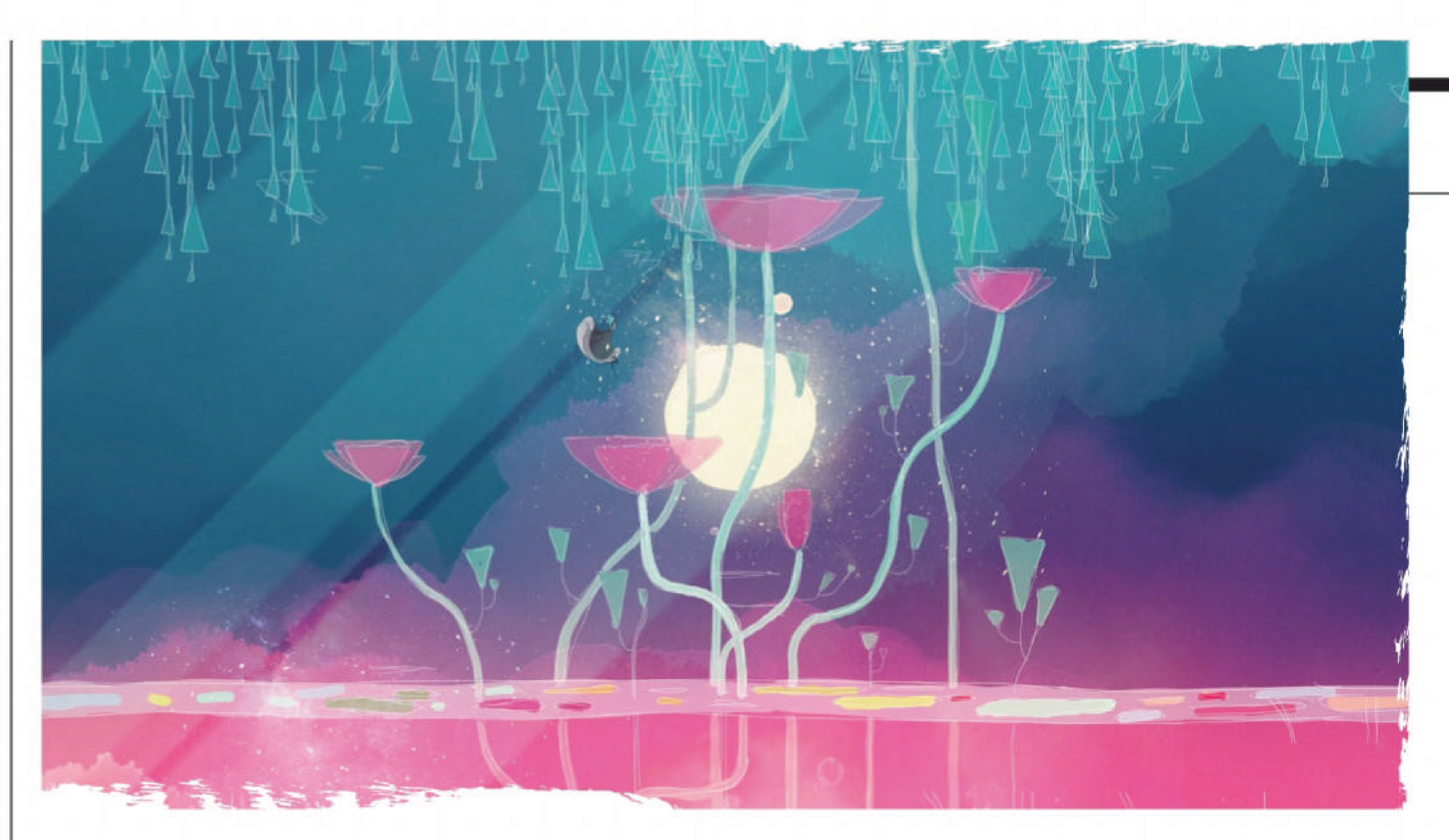
Williams gives an example from working with a translator on the Japanese text for the demo: "We thought we had everything covered until learning that we had used the Japanese font equivalent of Arial... not exactly fitting for the style of the game! Working with Japanese calligraphers and other cultural consultants will help lend our game an authenticity that we might not otherwise achieve on our own."

Williams adds: "We'll continue to seek feedback but the positive reception we've had when speaking with Japanese friends and companies we've been in discussions with so far has been really encouraging." ■



**ABOVE:** The developers used collages as well as their own printing methods, while creating the game.

**RIGHT:** A sketch of a river scene helps with composition.



# GRIS

## Beautiful melancholy

**Conrad Roset's main focus for the poetic platformer *Gris* was on creating an illustration that players could get lost in. Roset is an artist and illustrator whose work has been exhibited in galleries, featured in magazines and books, and commissioned by brands like Adidas and Zara. *Gris* was his opportunity to create a world, swapping the static for the fluid.**

The game unfurls as a tale of loss and sorrow – a dreamy experience that's more about evoking a kind of wordless enchanted bittersweet mood than offering up a thesis. As such, the imagery is the star of the show. Shapes cluster into plants, buildings form out of collections of columns, platforms and staircases. A gigantic bird shifts between a recognisable silhouette and an animated fluid mass.

*Gris* picks up motifs from Roset's existing work. There are blooms of watercolour pigment, neat ink outlines, and a fascination with the bodies of lithe women. His style is spare, using a lot of white space to balance punches of colour. In translating that to a digital environment, he worked with his partners Adrián Cuevas and Roger Mendoza at Nomada Studio to make sure the filters, textures, watercolour effects and so on would produce the right look.

Bringing Roset's work to life began with hand-drawn sketches, including watercolours. Once he and Nomada started the game, the art and animation moved to Photoshop but with an emphasis on maintaining the organic look and feel.

For example, there's an animation whereby a cloud of colour blooms across the screen. For this the team used a video of paint falling into a bowl of water and then adjusted it in Unity so it looked like it was blooming from the right part of the screen. Those floods of colour are narratively important, too. They happen when a player gains access to a new part of the colour palette.

**TOP:** Flowers and trees need to work for platforming as well as the look of the scene.

**RIGHT:** Sketches allow an artist to capture the main shapes of a scene.

### INSPIRATION

As well as Roset's own work, Eyvind Earle's Disney artwork is a reference point, particularly his concept art for *Sleeping Beauty*. Those images use layers to create the illusion of depth without linear perspective – a technique that translates well to a 2D platformer.

Earle's influence is most evident in *Gris*' forest sections where squared-off topiary is held aloft by tree trunks so slender they're just vertical lines, with other vertical lines as branches.

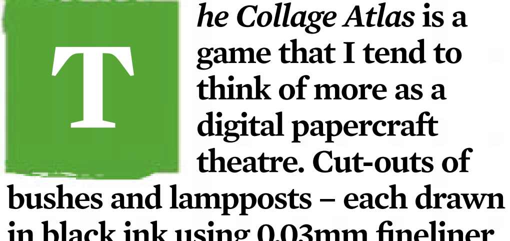
Curiously for a game about grief, *Gris* seems to avoid anger, harshness and ugliness. But this too is an aesthetic choice. "There are some rougher scenes," says Roset. "I liked the idea of talking about harsh topics from a gorgeous, aesthetically pleasing viewpoint." ■

**THE TEAM USED VIDEO OF PAINT FALLING INTO A BOWL OF WATER**



# COLLAGE ATLAS

## Penmanship counts



**T*he Collage Atlas* is a game that I tend to think of more as a digital papercraft theatre. Cut-outs of bushes and lampposts – each drawn in black ink using 0.03mm fineliner pens – emerge from the rough white watercolour paper ground. Arranged in layers around a central gap, these cutouts create a garden walkway, leading towards an intricate, wrought iron-style pen-and-paper gazebo.**

"I draw everything on paper then scan each element," explains the game's creator, John Evelyn. He then cuts them out in Photoshop and removes the paper texture, which the scanner struggles to capture. "I then take the bare line art and back it with a high res photo of a blank sheet of my paper."

3D elements work more like paper construction projects. "I print the flat UV map outlines (like flattening the foil wrap off a chocolate Santa), then I draw all the detail in, scan that back into the computer and wrap the model in the new hand-drawn texture."

As well as trees, pinwheels and boats, *The Collage Atlas* uses text as a physical object in the game. For example, sometimes letters appear jumbled unless you stand at the exact right viewpoint. Physical text has been integral to the game since Evelyn decided it should be a game in a 3D space and not a picture book, as was the initial idea.

"It just made sense for the text to live within that space, too – rather than as an overlay. Before long I realised that if the text were to share the space with the player then it logically follows that it responds to, and acknowledges, the player much as the environment does."

Agency and hope are key themes for Evelyn in this project. In pursuing those themes, *The Collage Atlas* is overtly reactive in ways developers usually try to hide. For example, assets rotate to face you as you move around, or move only when you look at them.

"Initially people find it strange that the game world essentially doesn't exist until they act, until they breathe life into it," says Evelyn. "But I've endeavoured to pack the game with regular payoffs, to encourage people on their way and make that seem like a less daunting task."

Drawing is a liberating experience for the self-taught Evelyn. "I tend to think exhaustively about everything, but when I draw, I don't. I just let it turn out how it will," he explains. "The more you learn, the less you realise you know, so I love keeping drawing as my one deliberately naive endeavour, it's fun to do something entirely free from expectation." ■



**TOP:** Old-fashioned lampposts and wrought-iron gates are recurring motifs.

**BELOW:** The effect is beautifully delicate.

# LUNA

## Working in 3D

**It's odd to think that *Luna* – a game with such rich textures and which plays out its gentle story in a variety of interactive terrarium-style spaces – was ever intended as a solely 2D game. Porting it to VR happened about halfway through development after the team experimented with taking a version of *Luna* to the Oculus platform.**

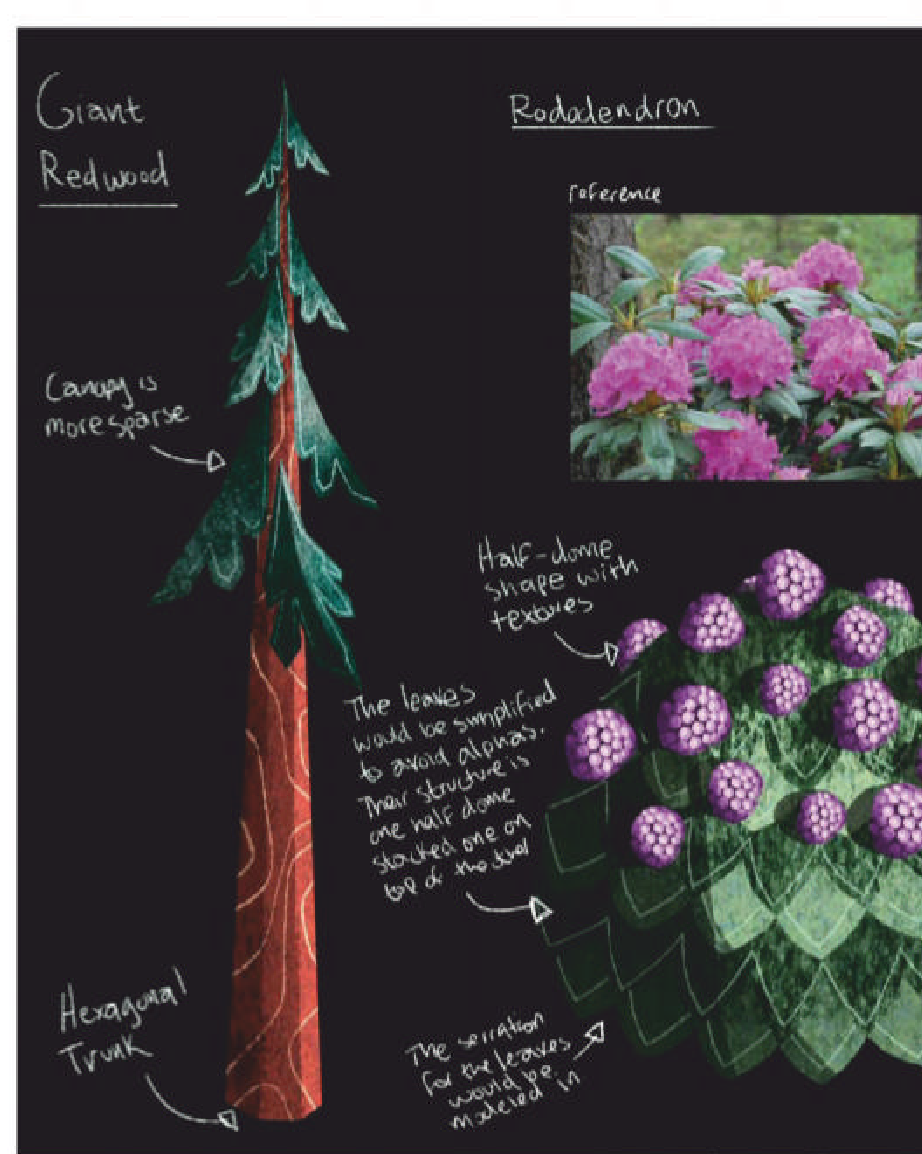
"The tactile quality of the art lent itself perfectly to VR," says *Luna*'s art director, Glenn Hernandez. "But this meant that we could no longer simply replicate my concept paintings in the VR realm since the 2D camera was very curated."

Instead, Hernandez would greybox (block out) the basic forms of the environments and the team would see how different arrangements felt in the headset. Modeler Allena Hail would then add definition to the greybox using Hernandez' paintovers (images where an artist has painted over an image of the space to show how it should look) for reference.

Hernandez stresses the collaborative nature of the work at Funomena. "My drawings and paintings serve as blueprints, and the real design comes to life when other artists insert their unique senses of style to the finishing touches."

**"WHEN THE LIGHTING FOR THIS SCENE CAME TOGETHER WE WERE ECSTATIC!"**

*Luna*'s own blueprints take inspiration from the illustrations of Mary Blair, the woodblock prints of Umetaro Azechi, the animations of Jirí



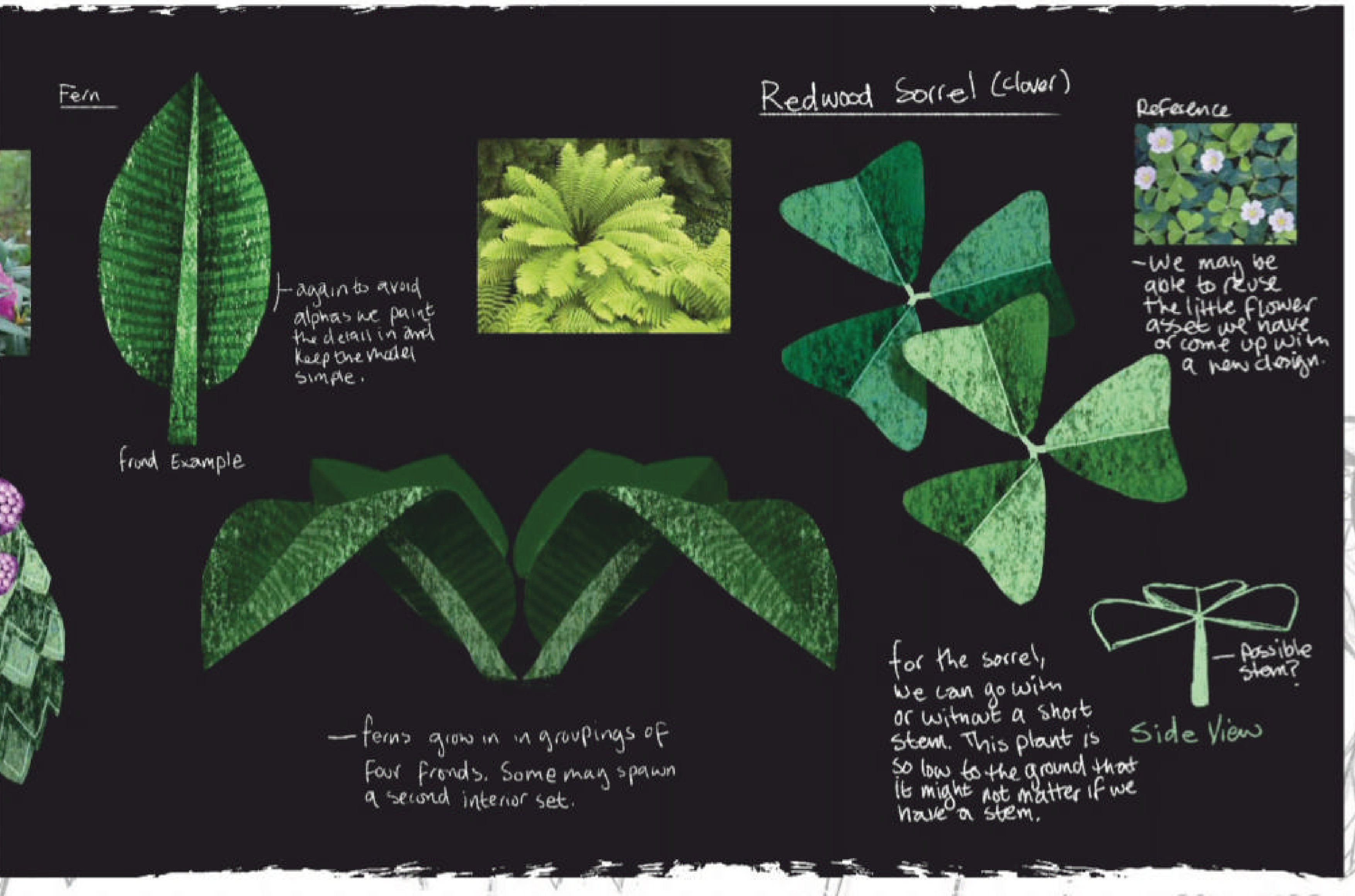
Trnka, and the sculptures of Lee Bontecou and Harry Bertoia. Funomena also looked at the folkloric style of the 1975 Yuri Norstein film Hedgehog in the Fog. "Eventually, we set those influences aside and allowed all of the inspiration we absorbed to filter through our own vision," says Hernandez.

## A SENSE OF WONDER

Learning to work in the medium of VR presented more than a few challenges, so the team needed to be flexible. "For example, my initial designs for plant life were rather delicate on the page, but showed up as pixelated when interpreted in VR," says Hernandez. "At first we tried to make the delicate designs work, since the beefier the assets were the more they felt like Playmobil toys, but we realised this was actually well in line with our vision for the game."

Although he emphasises everyone's contribution, it's working with engineer Greg Lemon to curate a shift in lighting during *Luna*'s intro which is a particular source of joy for Hernandez. "We open on the Golden Gate Park Terrarium as the sun goes down and the lighting shifts from golden hour to early evening. When the lighting for this scene finally came together, we were ecstatic! We had nailed the sense of mystery and wonder we were going for." ■






**ABOVE:** The earliest concept art for *Luna* has a beautiful patchwork quality.

**LEFT:** Reference images help inform the look of these plants, as do other artists' work and the game tech itself.

# KEEP ON TRUCKING

The story of how **EURO TRUCK SIMULATOR 2** became an unlikely cult hit on PC. *By Andy Kelly*

**As I write this, 35,000 people are playing *Euro Truck Simulator 2* on Steam. That's more than *Artifact*, Valve's new card game, and giants like *Garry's Mod*, *The Witcher 3*, and *Football Manager*. It might seem like an anomaly, but anyone who's spent any time in this sim's recreation of Europe will understand completely.**

Czech developer SCS Software released *Euro Truck Simulator* back in 2012, and the game has since developed a cult following – including several members of the PC Gamer team. But why? Well, fundamentally, because it's good. It has satisfying driving physics, a vast, atmospheric map and a peaceful, stress-free way about it that you can easily lose an entire evening to. Fans of the game often describe it as hypnotic, and it really is.

But as the small development team added the finishing touches to its new game, it didn't even know if it would break even. "When we first released *Euro Truck Simulator 2* into the world we weren't even sure it would be popular enough to cover the cost of development," explains Pavel Medek of SCS. "The scale of the game was much bigger than anything we'd ever attempted before, which made its development feel like a huge risk for us.

"We'd created a few other truck sims before, so we had a lot of passion and experience to put into it. A few weeks after launch we were surprised by its popularity – and not just among fans of hardcore driving sims. People were excited and already asking for more! And six years later we're still supporting and developing it. It's by far our most-played game."

Part of what makes *ETS2* so compelling is the fine balance it strikes between being a simulation and being fun and accessible. Not to mention the variety of ways to play, from simply enjoying a road trip to building an empire. "At the time of release, this combination was quite rare in simulator games. Some of our players enjoy exploring the world; some like customising and tuning their trucks; many enjoy the rags-to-riches aspect of building their trucking company up from one small garage to a huge logistics operation."

## WIDE REACH

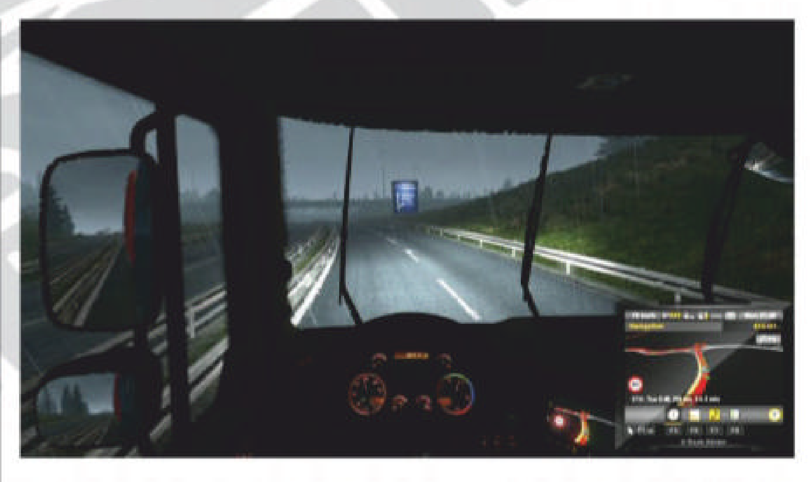
Not once in my life have I ever thought about being a truck driver, or really had an interest in them as vehicles, yet I find the game utterly captivating. This was something that surprised SCS – when it realised how broad its player base was. "For a long time we thought we were making simulators for those people who love trucks. But then it dawned on us that plenty of people play *Euro Truck Simulator 2* who don't have any interest in them at all."

I ask Medek what particular magic he thinks the game has, and why I can play it for two to three hours at a time without realising. "I think it's because the game doesn't stress you out or ask for 110% of your focus," he says. "You can just enjoy yourself, drive and relax. Exploring cities, enjoying the weather effects, trying one of the many different fan-made mods, or just flicking on the in-game radio and driving wherever the road takes you."

But what about hardcore players looking for the most realistic simulation possible? I wonder if catering to them is at odds with keeping the game accessible. "We work hard to keep both types of player in mind," Medek says. "We have lots of new features in development that will increase the satisfaction of exploring the world, which we believe both casual and hardcore fans will enjoy. But we do have to be careful not to get to the point where the game is too hard, where you feel like you need a commercial driving licence to play it."

As for creating that enormous map, which spans an incredible distance and is growing constantly thanks to frequent DLC expansions, SCS has learned a lot over the years. "As time has gone on, the game world has become more and more elaborate. Six years ago the whole company was a small team of around 15 people at its busiest times. Now we have about half our company developing *ETS2*, which amounts to over 70 people working full-time. Previously, creating the whole game was a task for two to three people, and now the team working on the map alone consists of over 40 different designers.

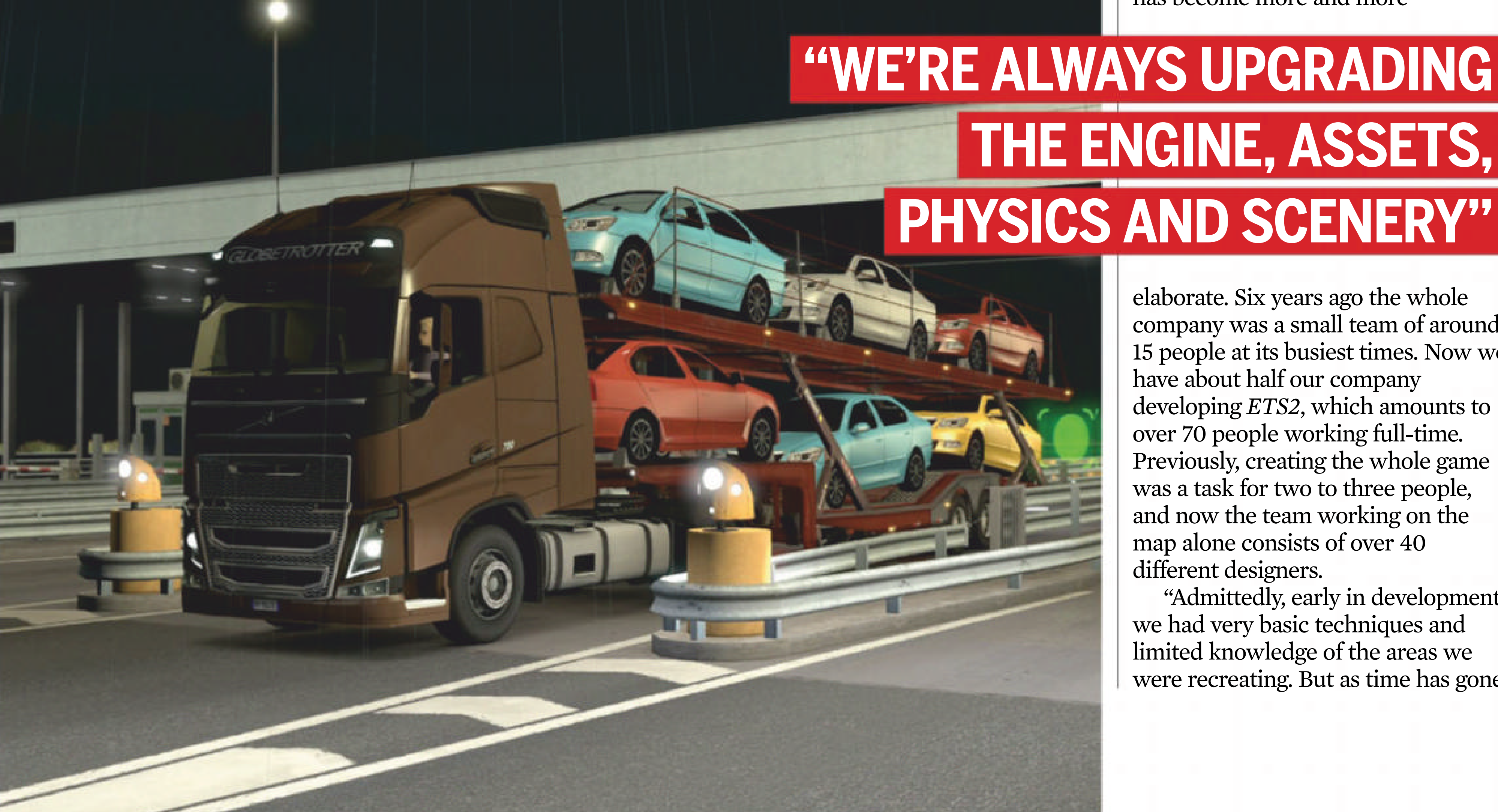
"Admittedly, early in development we had very basic techniques and limited knowledge of the areas we were recreating. But as time has gone





**TOP:** The game's subtle rain effects are incredibly atmospheric.

**ABOVE:** A recent update added random road events from minor crashes to emergency plane landings.



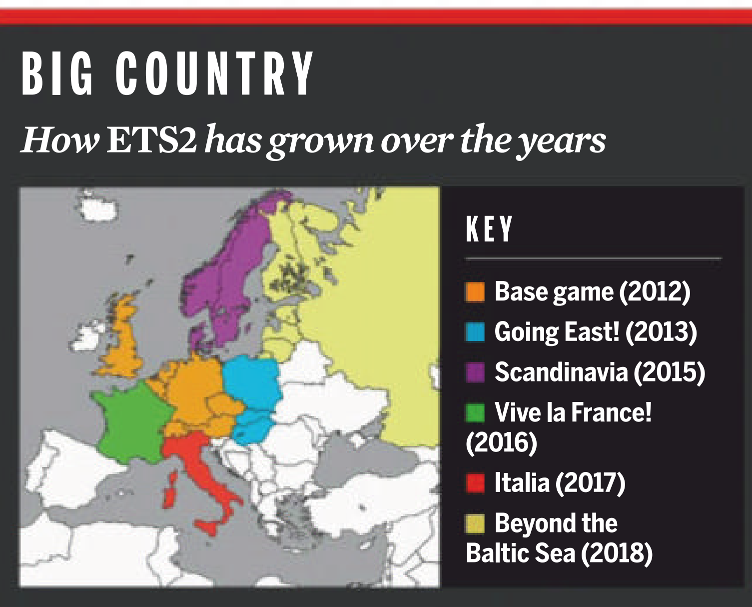

**"WE'RE ALWAYS UPGRADING THE ENGINE, ASSETS, PHYSICS AND SCENERY"**

on we have new tools and skills that help us bring extra immersion to the map, to make you really feel like you're trucking across Europe. When we look at a new country to add to the map, researchers look at everything from road signs, traffic laws, buildings and even small things such as grass and tree types. And, of course, Google Street View is always our friend."

## JOB SEEKER

One of the more surprising outcomes of *ETS2*'s success is that it has become, entirely accidentally, a sort of propaganda for the trucking industry. "Truck manufacturers don't see us necessarily as a marketing opportunity for them, but more like a stepping stone into the industry. They also sometimes tell us that our game makes the job look like a cool adventure, and that is, of course, very desirable to the transportation industry in general."

And while you'd think the last thing a truck driver would want to do after a week on the road is do it virtually on their PC at home, you'd be surprised. "Whenever we're on the road, travelling and meeting people at expos, we get a lot of truck drivers stopping by and telling us that they love the game. Even the younger generation, who are learning to be drivers or aspire to learn one day, say it's an inspiration for them. Someone who recently learned to drive trucks in real life told us that our game actually helped them ace their manoeuvring test, and hearing that is very satisfying for our team."




By now, most developers would have cashed in on the surprise success of their game by releasing a sequel, but SCS has resisted so far. I ask Medek why this is. "*Euro Truck Simulator 2* has become such a long-term platform for us that we have never really made any commitment to making a third game. But if we did ever want to make a new one, we'd have to do it from scratch to justify it, and improve on everything we have currently. But we don't have the time or the team size for such a venture at the moment."

Instead, SCS is staying relevant by steadily improving the game. "We're constantly working on new features, and we're always upgrading the engine, assets, physics and scenery. We also have a lot of common requested features including seasons, more varied weather, and multiplayer." You can play *Euro Truck Simulator 2* online now thanks to the remarkable TruckersMP mod, although it has a few drawbacks, namely the roads being completely devoid of traffic. So it would be good to see an official multiplayer mode from SCS itself.

"*Euro Truck Simulator 2* was a crucial factor in making SCS Software what it is today. In the beginning we were a small team, loyal to making great truck sims, but now there are over 140 of us. But even so, we still don't have enough manpower to take advantage of all the ideas we have. We also want to thank the fans who have been by our side from the very start, and through many years of development. We hope this is just the start, and we hope to become bigger, better, smarter and faster when it comes to making games."

SCS recently expanded the game with a DLC pack called *Beyond the Baltic Sea*, which adds 13,000 kilometres of new roads, countries including Lithuania, Latvia and Estonia, a chunk of southern Finland, and Russian territory including Saint Petersburg and Kaliningrad. The rate the studio works at is obscene, and with every new piece of country added to the map it gets better at creating a sense of place. So whether you're driving through the rolling farmland of France, the dramatic mountains of Norway, or the rain-lashed motorways of the United Kingdom, *Euro Truck Simulator 2* is the best road trip on PC – and it doesn't seem like it'll run out of gas anytime soon. ■

**TOP:** Signs, police cars and other details change realistically between countries.

**LEFT:** Hauling oversized cargo is a real test of skill and endurance.



# BECOMING BRYTENWALDA

How seven **MOUNT AND BLADE** modders formed a games studio.

*By Tom Bedford*



***Mount and Blade: Warband* is a playground for mod lovers, with overhauls transporting players to Middle-earth, Westeros, or Star Wars' galaxy far, far away. Arguably, though, its most significant mod isn't set in some fantastical land, but in seventh century Britain. *Brytenwalda* is the passion project of Alberto 'Ibidil' Fuentevilla de Diego, a Spanish modder who transformed Britain's Dark Ages into a mod, then DLC, and established an indie studio. When he began tinkering with game files in his spare time, he couldn't have known how far his determination and passion would get him.**



**ABOVE:** *Brytenwalda* tasks you with invading – or defending – Britain

**MAIN:** *Mount and Blade* mods range from retextures to total overhauls

Ibidil is a creative type, always telling stories in whatever way he can, and he found recognition in the modding community for his work on *Iberia: Total War*, the 2005 total conversion mod to *Rome: Total War*. Ibidil became involved after a community of Spanish gamers felt its nation was portrayed with too many historical inaccuracies; *Iberia: Total War* was developed in part to address these issues. Ibidil dealt with documentation relating to the mod as well as editing the battle system and organising the work of those modding models and textures – giving him a well-rounded suite of experiences to bring forward.

## ROME TO ROCHESTER

Like Britain itself, Ibidil progressed from Rome to the Dark Ages. This change came from reading about the fall of the Roman Empire, and post-Roman Britain. "It was a world with very defined dynamics, of small and warlike kingdoms, with kings who knew that everything played out on the battlefield," he says. It was perfect for a game. Not many records remain from the period, hence the name 'Dark Ages', but this only empowered Ibidil. He loved the rich and complex history of seventh century Britain and wanted to bring the period to life – he found it a shame "names like Penda or Cadwallon were only known by historians". He even translated the Canu Heledd, a series of early Welsh poems, into his native Spanish.

At this time he was moving on to a new passion. *Mount and Blade: Warband* is popular among modders, with the freedom of the base game translating well to popular contexts. The game, with its medieval setting and focus on the exploits of the

common man, chimed with Ibidil's interest in medieval Britain. "It was as if TaleWorlds had read my mind," he says. He saw an opportunity. "Videogames can make stories and history come alive." Britain was ripe for the coding.

The freedom presented by *Mount and Blade: Warband*'s open world let Ibidil tell stories in a unique way. Playing games to Ibidil "means experiencing history in a different, more hands-on, way". The obscurity of the Dark Ages made it the perfect setting for him to weave his own adventures. The mod was named after the old British term 'Brytenwalda', or 'Britain-ruler'. As *Mount and Blade: Warband* is about claiming land for your kingdom, the name was apt.

*Brytenwalda* was never intended for other players, it was "a simple mod, just for myself", says Ibidil. He wrote a quest here, changed textures there, and little by little the fictional kingdom of Calradia turned into Britannia. But Ibidil couldn't hide his desire to tell stories. He released a rough beta of the mod, and *Warband* modders loved it. An opportunity arose – "I wanted everyone to enjoy the Dark Ages," Ibidil says.

Ibidil was wise to the low completion rates of mods – the TaleWorlds online forum is peppered with blogs for mods that never left the nest. He knew that to succeed he couldn't go it alone, so he tapped into *Warband*'s budding mod scene. Asbjørn Lindegaard 'Adorno' Møller from Denmark had been developing scenes and locations as a hobby, and decided to join forces with Ibidil before the mod's first official version. As more versions were released, the team kept growing; Michael 'Motomataru' Richter from the US, Matthias 'Phaiak' Grohmann from Germany, and Marco Aurelio 'Yeyo' Balbás Polanco, Leyre 'Elyllon' Ramirez Erviti and César 'Caesar' Iñarrea Sangués from Spain were brought into the fold. Their expertise in modding, and history, made for a productive harmony.

Thankfully, the rest of the team came to see Britannia through Ibidil's eyes. "I remember first reading Ibidil's post about his pursuit to create a historical mod about Britain in the seventh century, and thought, 'Who is this guy?'" Adorno says. "I certainly didn't think such a relatively obscure time period would make for a popular mod." But as the blank spaces in the seventh century drew in Ibidil, they also captivated the others. "Almost everyone knows about the Roman era in Britannia, the legendary King Arthur, and the Viking raids on the British Isles. But the seventh century! What happened there?" Adorno says. As the mod developed, the players were brought into the fold, too. "Your own passion for something can infect others," Adorno adds.

## MET THROUGH A MOD

*These studios came to be through modding*



**TRIPWIRE INTERACTIVE**
After making the *Red Orchestra: Combined Arms* mod for *UT 2004*, this studio found fame through the *Killing Floor* series.

**TEAM PSYKSKALLAR**
Psykskallar's game *Cry of Fear* originated as a mod for Valve's original *Half-Life* before becoming its own standalone title.

**TORN BANNER STUDIOS**
*Chivalry: Medieval Warfare* began life as *Half-Life 2* mod, *Age of Chivalry*, before Torn Banner formed to develop it into its own entity.

**TOP:** *Viking Conquest* includes Saxons, Britons, Vikings, and other warring kingdoms.

## OVERWHELMING FEEDBACK

There may have been seven modders but there were hundreds of contributors to *Brytenwalda*. The mod has been downloaded nearly 100,000 times on Nexus Mods alone and each player had suggestions for tweaks and changes. "It's both helpful and motivating, but also challenging, since you need to keep focus. You can't satisfy everyone," Adorno says. With each version of the mod more novel features were added, like naval combat and a religious system. The latter is such an important system that Ibidil says he can't imagine the mod or the resulting DLC, *Viking Conquest*, without it.

The mod grew from a historically set alternative to *Warband*, to a distinct game with novel features, options and challenges. For this, the team, needed more talent. "It's also important to point out



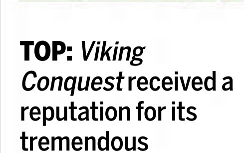


*Brytenwalda* had many contributors, a long list of other modders whose work was incorporated into *Brytenwalda* – sometimes at the request of users/fans," Adorno says.

Fans weren't the only people paying attention to *Brytenwalda*, however. Just as *Brytenwalda* was hitting peak popularity, Cem Çimenbiçer from TaleWorlds approached the mod team with a proposition – 'Why don't you turn this into an official DLC?' And so the *Brytenwalda* mod team turned into Brytenwalda Studios.

Immediately, the group's dynamic changed. Previously it'd been a collection of fans, working in their spare time; now they were professionals contracted to perform and deliver regular work and status updates. They had to work to broader plans and deadlines. Compounding this shift was the decision to not just adapt the mod into DLC but use it as a basis to create an entirely new experience. "I did not want to repeat," Ibidil says. *Brytenwalda* became *Viking Conquest*.

Thankfully, TaleWorlds was supportive, with Motomataru describing the studio as "informal, friendly, and trusting", adding, "I was surprised by how much support they gave us with additional operators into the engine and modifications for the pathing, etc." The team continued to collaborate from afar. Phaiak explains, "This method worked out well during the mod development and it felt natural for us to go on that way."



**TOP:** *Viking Conquest* received a reputation for its tremendous difficulty.

**ABOVE:** An army of Vikings prepares to conquer and pillage.



However when *Viking Conquest* launched, fans realised it wasn't the expansion they were hoping for. "We overestimated what we would be able to reach," Caesar explains. Even cutting features before release, the extra systems added on top of the base game took their toll. Fans and the press were quick to point out the bugs and stability issues the DLC's expanded scope brought about, and its intense difficulty was enough to handicap even veteran *Warband* players. Caesar admits the step from free mod to paid expansion wasn't handled as successfully as they'd hoped, with "performance issues that brought a lot of bad reviews, most of them due to the big step we made from the native game".

"After all that process we certainly learned a lot about keeping our ambitions in the floor and not flying to the sun," Caesar continues. "After that hard hit from the reviews, we focused more on the quality of features than the quantity."

## THE BIG STEP UP FROM THE NATIVE GAME HAD AN IMPACT ON THE TEAM

### COMMUNITY CONQUEST

One of the greatest virtues of any creative person is to keep working on a project despite setbacks and criticism – a rocky launch doesn't signify a broken game. Brytenwalda Studios knew that fans' goodwill was at stake, and, as a team made of up fans themselves, they knew this period was make-or-break for the team. They worked tirelessly creating updates for *Viking Conquest*.

Seven months after *Viking Conquest*'s release the team finished the *Reforged Edition*, a patch that eradicated the bugs. It took hard work, and an honest confrontation of all that had hindered the devs during development of the DLC, including a discussion of their actual vision and scope for the game. Their effort paid off, and the reviews on Steam have nearly all been positive.

*Brytenwalda* began as a solo passion project but snowballed into a multinational team of devs with an official piece of content for a beloved game. Ibidil and his team showed that developers, modders and players inhabit not a strict hierarchy but a close-knit ecosystem, in which dedication, passion and perseverance leads to profound success. Today, the team is working on unannounced projects, with an aim to "produce new titles from our company values of immersion, complex stories, and historical fidelity". ■



PC GAMER

# REVIEW

## HOW WE REVIEW

**We review each game on its own merits, and try to match it to a reviewer who's a passionate expert in the field. The main aim of reviews is to help you make buying decisions. To this end, we're selective about what we review, and try to focus on the notable, interesting, exciting or surprising.**

### DOWNLOADABLE CONTENT

DLC might be new missions for a game, or it might be a single new item. If we think you want to know about it, we'll review it.

### EARLY ACCESS

Any released alpha, beta, or otherwise unfinished game that you can currently pay for. For these games, we won't assign a score, but we will tell you whether they're worth your time.

### THEY'RE BACK

Whenever there's a bargain or re-release of a significant game, our expert will revisit it and tell you whether it holds up today. With jokes.

## OUR SCORING SYSTEM EXPLAINED

**00%-09%** Broken or offensively bad; absolutely no value.
**Example** *Leisure Suit Larry: Magna Cum Laude*

**10%-19%** We might be able to find one nice thing to say about it, but still not worth anyone's time or money.
**Example** *Gettysburg: Armored Warfare*

**20%-29%** Completely falls short of its goals. Very few redeeming qualities.
**Examples** *Family Guy: Back to the Multiverse*

**30%-39%** An entirely clumsy or derivative effort. There's little reason to play this game over a similar, better one.
**Examples** *Trials of the Blood Dragon*

**40%-49%** Flawed and disappointing.
**Examples** *Aliens: Colonial Marines*

**50%-59%** Mediocre. Other games probably do it better, or its unique qualities aren't executed well.
**Examples** *Primordia, Homefront: The Revolution*

**60%-69%** There's something to like here, but it can only be recommended with major caveats.
**Examples** *No Man's Sky, Ghost Recon: Wildlands*

**70%-79%** A good game that's worth playing. We like it.
**Examples** *Prey, NieR: Automata*

**80%-89%** A great game with exceptional moments or features, and touches of brilliance. We love it.
**Examples** *Overwatch, Night in the Woods*

**90%-94%** A compelling recommendation for most PC gamers. Important to PC gaming, and likely ahead of its time.
**Examples** *Bayonetta, Dishonored 2*

**95%-96%** Far and away one of the best games we've ever played. We recommend it to the entire world.
**Examples** *Half-Life 2, Kerbal Space Program*

**97%-100%** Advances the human species. Boosts the immune systems of nearby children and small animals.




**The Editor's Choice award is granted in addition to the score, at the discretion of the PC Gamer staff. It represents exceptional quality or innovation.**

**Find out more**
www.bit.ly/pcgreviews

# Fruitful

"This month's crop of games is basically a celebration of physics!" That's what I wrote when I started this review section's introductory column, anyway.

I think it was a comment on how much fun Robert Zak had with the explosions of *Just Cause 4* and how joyous my own return to the silly and weird world of *Katamari Damacy REROLL* was.

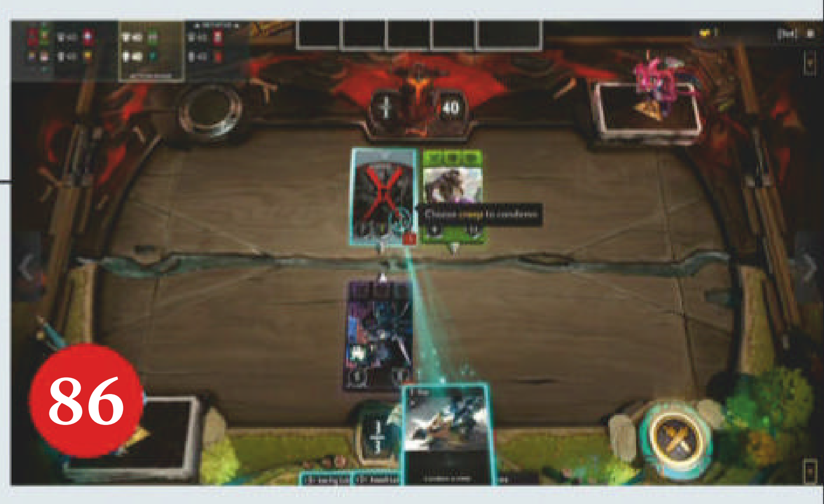
I can't be entirely sure because the pear by my keyboard had ripened in the night and I decided to edit that with my face instead of editing reviews with my pen. Now everything is covered in pear juice, including a copy of Rick Lane's *Parkitect* review, and physics is entirely to blame. The pear had too many physics and couldn't be properly contained.




**PHILIPPA WARR**
DEPUTY EDITOR
philippa.warr@futurenet.com

**LET US KNOW WHAT YOU THINK**
Email us via letters@pcgamer.com with your reactions, or simply tweet us your thoughts @PCGamer


76


86


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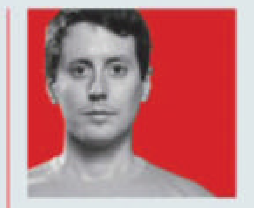
# Contents



## This month's Axe bidders...



**PHILIPPA WARR**
**Specialist in** Pear physics
**Currently playing** *Katamari Damacy*
**This month** Rolled through the universe collecting all manner of tat. And in the game.



**ALEX WILTSHIRE**
**Specialist in** Duck drama
**Currently playing** *Mutant Year Zero*
**This month** Weaponised a lot of mutant animals for his own evil purposes. And in the game.



**TOM HATFIELD**
**Specialist in** Technocults
**Currently playing** *Mechanicus*
**This month** Fought a load of terminators from the beginning of time. And in the game.



**RICK LANE**
**Specialist in** Parks (themed)
**Currently playing** *Parkitect*
**This month** Paid people to cart sausages around in utter secrecy. And in the game.



**TOM SYKES**
**Specialist in** Doll restoration
**Currently playing** *The Doll Shop*
**This month** Glued broken and terrifying doll faces back together. And in the game.



**CHRIS THURSTEN**
**Specialist in** Learning no lessons
**Currently playing** *Aliens: Colonial Marines*
**This month** Learned nothing, in-game or out.



**STEVE MESSNER**
**Specialist in** The longest games
**Currently playing** *Warframe*
**This month** Steven doesn't leave the game long enough for "and in the game" jokes to work.

# EXPLOSION MAN

**JUST CAUSE 4** has enough new hooks and tethers to keep up the adrenaline… just. *By Robert Zak*

**The *Just Cause* series has a knack for holding your attention in short bursts. It can cause you to grit your teeth as you wingsuit so close to mountains that you can taste the snow spray, and grapple-hook up to helicopters to escape the mushrooming flames of exploding bases. It also gives you the freedom to tether a goat to a balloon, hook yourself onto it and float off into the stratosphere.**

And yet, thanks to some sparing improvements – mostly in the way of chaos-causing gizmos – *Just Cause 4* is still capable of charming me. For all its annoyances, it still says to me, with a mischievous twinkle in its eye, 'Yeah, but do other games let you do this high calibre of silly shit?' Which of course they don't, unless you count previous games in the series.

## RIGHT AS RAIN

The premise is familiar. You are Rico Rodriguez, a freelance super-agent, and one-man flashpoint for revolutions on seemingly every dictator-run tropical island he drops into. This time, Rico's helping liberate the South American island of Solis, a vast paradise of several beautiful biomes whose people are oppressed by dictator Oscar Espinosa and his Black Hand army. It ties into the plots of the previous games (for anyone who actually cares), and has a dash of light intrigue, too, thanks to a connection to Rico's father, who inadvertently helped the dictator harness the elements and weaponise the weather. It's lightweight, but good humoured and well written enough to tick along with.

It's on you to wrest back control of the island. Where in previous games you did this simply by causing enough destruction in a given region, this time Avalanche has attempted to inject a bit more depth into the process. Each region has a specific mission you must complete, and once you've done that you can call in squads of revolutionaries – unlocked by destroying enemy infrastructure and capturing certain regions – to take control of it. The whole map is open for you to explore from the start, but you can only move these squads into regions neighbouring those under your control, making that map-painting process a little more focused than before.

> **Progress is dictated solely by Rico's renegade activities**

This macro-scale layer gives an appearance of strategy, with the numbers of squads in regions and frontline markers teasing the possibility of a kind of Risk-like territory game, but it never follows through. Head over to the frontlines and you'll see skirmishes between your squads and the enemy, but it's all for show, as the enemy can't actually retake territory from you, and your side's progress is dictated solely by Rico's renegade activities.

It is, of course, these activities, not the pseudo-strategy twaddle, that are the real reason people play *Just Cause*. The series knows now that it's dependant on the kind of all-action spectacle that makes Mission Impossible look like the most stolid of John le Carré novels.

So it's expanded the player's arsenal with everything from drone-firing railguns to weather-harnessing superweapons, which include a wind cannon that lets you invisibly blow away whole squads of enemies and structures, and the lightning gun, which not only zaps enemies but can create a mini lightning storm that fries everything in its perimeter. You can also now call in several planes simultaneously to drop a vast array of weapons and heavy artillery, giving you the freedom to turn *Just Cause 4* into a vibrant warzone of ragdolls and explosions whenever you like.

## HOOK UP

Then there's the all-important tether: the tool that single-clawedly set the series on its path of physics-based excess. This lets you attach objects and people to each other – creating a showcase of physics silliness – and it's received a welcome upgrade. There's still the retractor which lets you, say, string two or more helicopters together and send them twirling into each other. Joining it now is the 'Air Lifter' balloon tether, which enables you to attach several balloons to objects and send them off to orbit, as well as 'booster' tethers that send their hapless targets fizzing around uncontrollably like cheap fireworks from your local convenience store.

The old upgrade system has been largely replaced, with many once-

### NEED TO KNOW

**WHAT IS IT?**
A silly physics sandbox in South America.

**EXPECT TO PAY**
£40

**DEVELOPER**
Avalanche Studios

**PUBLISHER**
Square Enix

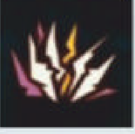
**REVIEWED ON**
Core i7-6700HQ , 16GB of RAM, GTX 1070

**MULTIPLAYER**
None

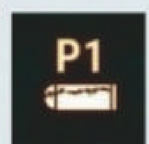
**LINK**
www.bit.ly/just_cause4

### IT'S A GAS *The best upgrades for your balloon*

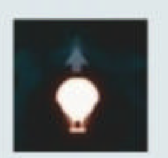
**Each of the three tether mods – air lifter, retractor and booster – can be tuned to attain the level of silliness you want. Here are the air lifter's balloon tweaks.**



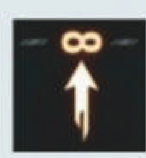
**GAS**
Do you want your balloons to go out with a pleasant pop or a big bang?



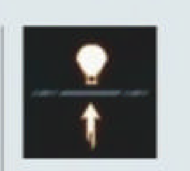

**ARMOR**
Make balloons invulnerable to your bullets, enemy bullets or both.



**LOCOMOTION**
Balloons float up by default, but can be set to follow you like a flock of sheep.



**PEAK ALTITUDE**
Sets the height your balloons float up to. The sky's the limit!



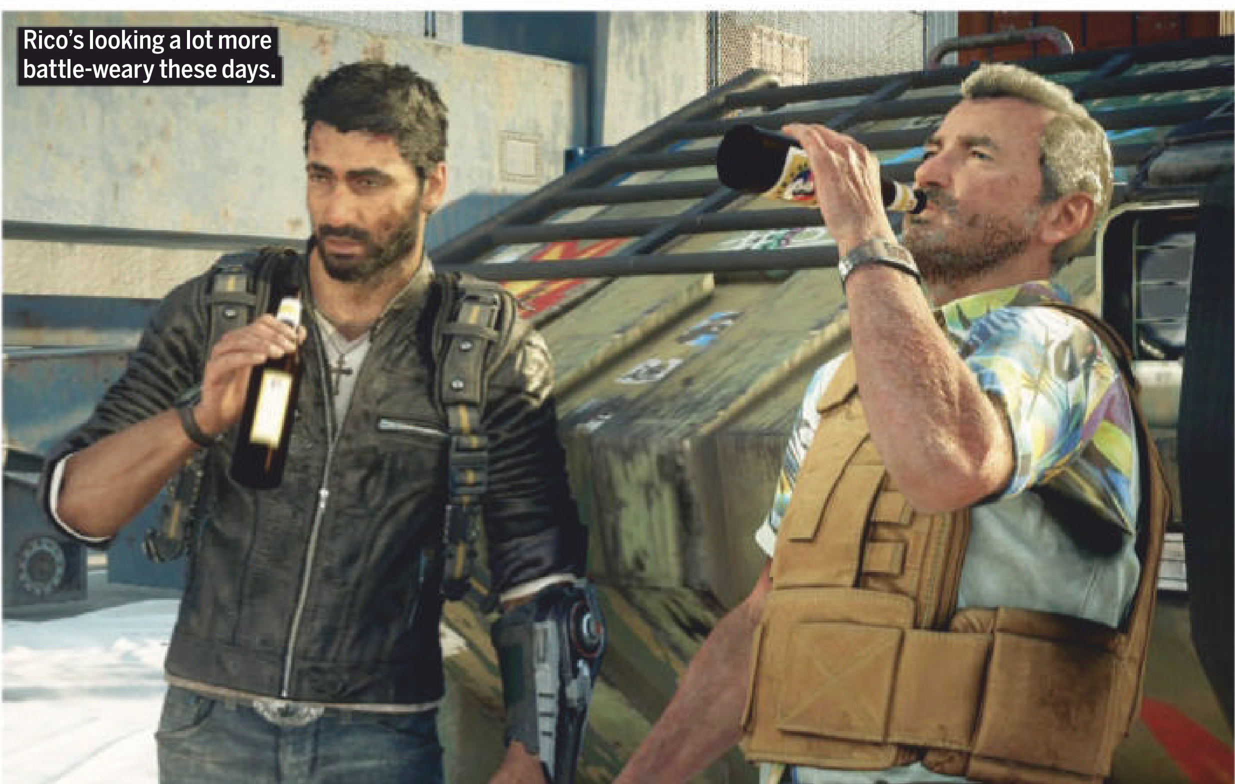
**PEAK EFFECT**
Should your balloons keep their cargo up there, or simply pop on arrival?

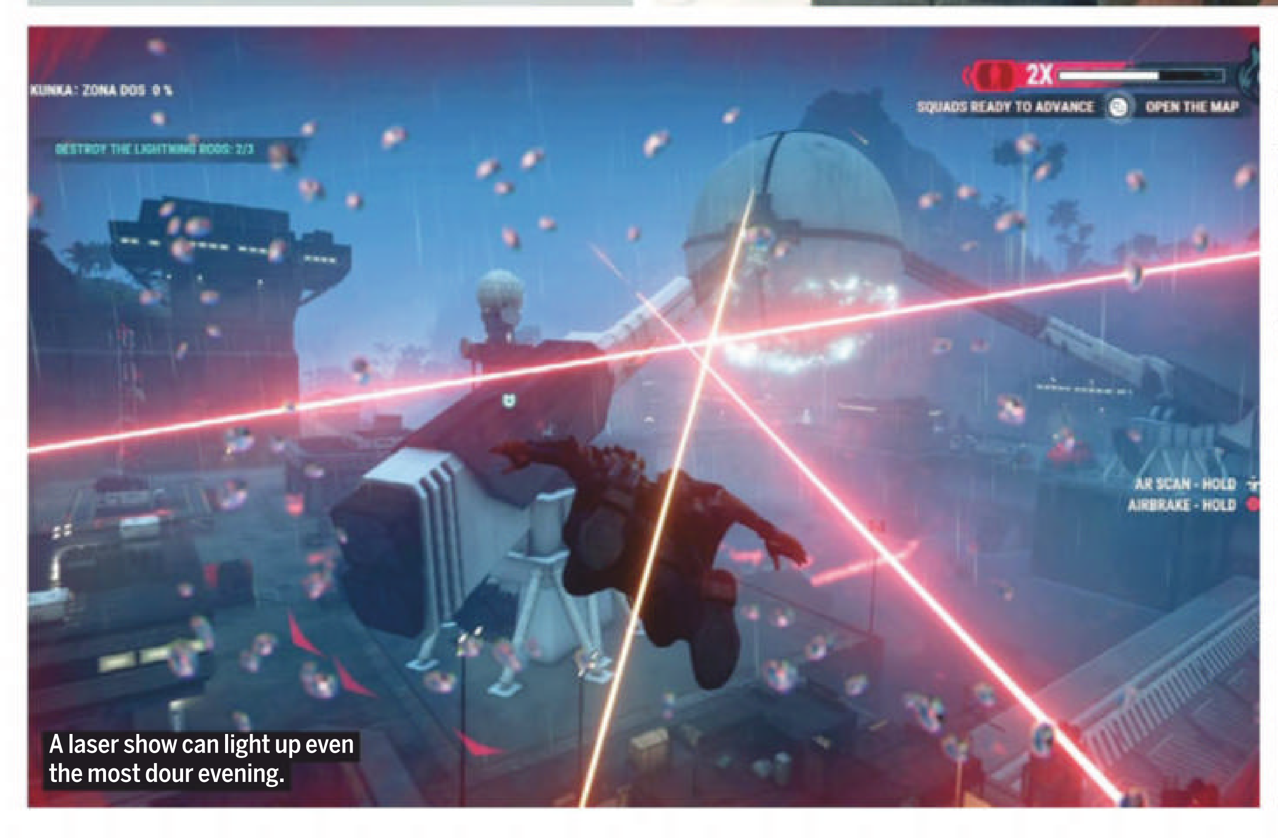


Too many missions involve prolonged standoffs.


Take over the map by completing missions.



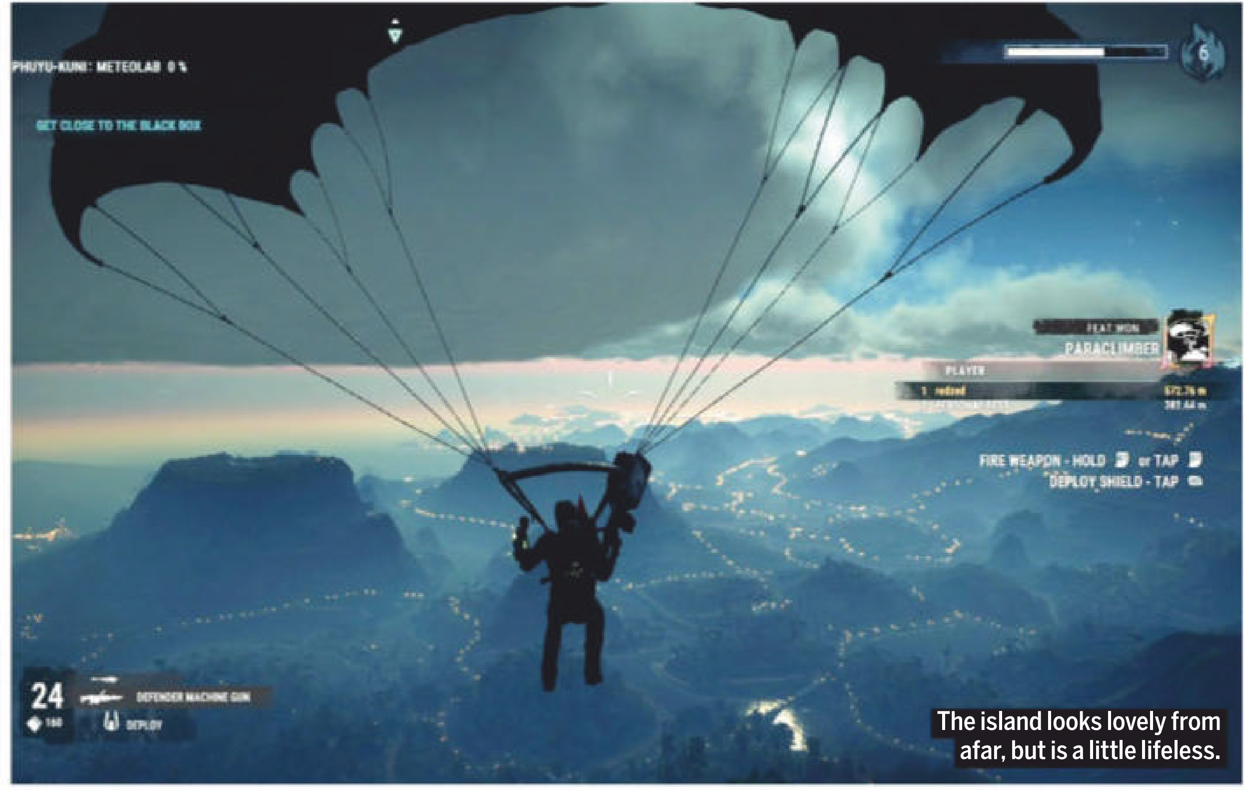


Rico's looking a lot more battle-weary these days.



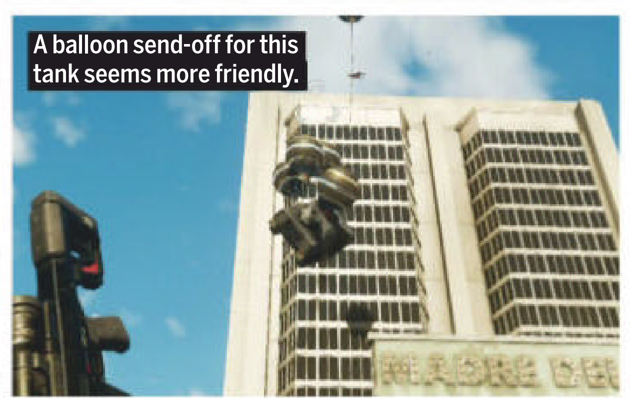
A laser show can light up even the most dour evening.


The story missions feature some stunning setpieces.


The story is well written and filled with crackpot characters.

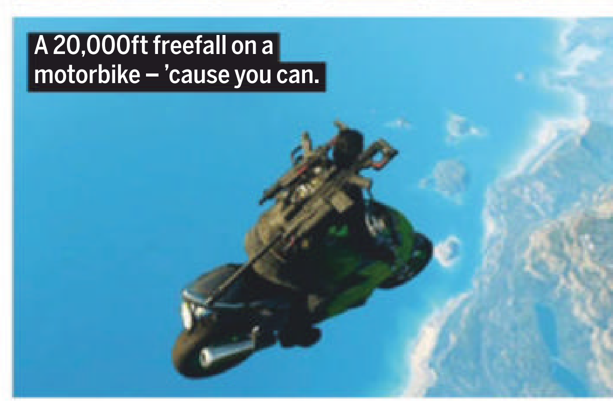


The island looks lovely from afar, but is a little lifeless.


A balloon send-off for this tank seems more friendly.







A 20,000ft freefall on a motorbike – 'cause you can.



There are fewer buildings to blow up, but it's still chaotic.

unlockable abilities now available from the off, and a new mix-and-match tether loadout system. Here you can have three different tether loadouts, with each one containing whatever mix of balloon, rocket and retracting tethers you like.

It's a good call, going all-in on the sandboxy spirit of the series, even though none of this stuff is necessarily practical in a combat sense. You can unlock fine-tune features like making your tether balloons explode on a trigger, or add a 'Power Yank' to your retractor, which makes even heavy vehicles collide like toys in the hands of a sugar-crazed child. It offers new levels of playful possibility that I'm sure people far more patient and creative than myself will exploit to make for some incredible YouTube highlight reels. *Just Cause 4* is designed around these possibilities, though that comes at the expense of a well-paced wider game.

Rico remains a weightless spiderman, retaining that joyous, nonsensical means of getting around that relies on well-timed sequences of grapple-hooking, parachuting and wingsuiting. It still feels breezy and liberating, though the novelty has faded for lack of any major improvements in this area.

But maybe all that stuff is essentially a glorified Zimmer frame, because on the ground Rico seems stiff in the joints, with no ability to sprint, dodge, or perform melee attacks with any real menace. Guns lack weight and punchy sound effects, enemies are incorporeal and floaty, as if half their insides have been replaced with helium, and driving remains awkward. Even the floppy ragdoll animations look as janky and unrefined as they always were, which is less palatable in 2018 than the last game in 2015, or *Just Cause 2* in 2010.

**Vehicles collide like toys in the hands of a sugar-crazed child**

## COVER THE FIELD

Progression is achieved mainly through territory-taking missions, which is unfortunately the weakest and most protracted part of the game. It's a small carousel of objectives that vary between seeking out consoles (so many consoles), standoffs against mindless waves of enemies while someone 'hacks a terminal', 'overloads a core' or other cyber cliches, as well as having to search large sections of base for barely discernible structures such as generators and fuse boxes, which open up drab underground bunkers.

### ADRENALINE GAUGE

*Highest highs, lowest lows*



The idea, presumably, is to give these missions more of a 'Special Operations' feel than the simple destructathon of before, but they also mess up the pacing, especially since *Just Cause 4*'s controls are unwieldy for smaller spaces and fiddly activities. It creates too many tedious comedowns from the bursts of brilliant action that the game thrives in.

The story missions are more carefully constructed, though, with some excellent setpieces where you're chasing tornadoes, or dashing through deserts in the middle of a sandstorm. But even then things can get the wrong kind of chaotic, such as during one chase sequence where enemy cars and choppers were spawning and literally piling over each other to get to me so quickly that it took me about five minutes to find an opening to get into a vehicle. It's as if Avalanche sometimes just cranks up the chaos slider – which I totally envision as one of the studio's design tools – without much design or thought behind it.

The amount of destructible structures – one of the very selling points of the series – seems to have been cut down from previous games. The generic bases that many missions take place in are populated mainly by concrete buildings, with fewer of those brittle metal frameworks that so splendidly collapse like matchstick houses. This is accompanied by the other strange decision to get rid of throwable C4, replacing it with the rather rare mine launcher. Where before controlled explosions were always an option thanks to a healthy supply of C4, here they're more of a luxury, which seems like an unnecessary thing for Avalanche to reel in.

Not that *Just Cause 4* is lacking in explosiveness, and when the fuel tankers careen across the ground or vehicles explode in seemingly endless chains, it still stokes a familiar feeling of awe. It's possible that the introduction of new weather events like sandstorms, lightning storms and tornadoes was intended to shift the focus away from just smashing stuff up (which did eventually get tedious in previous outings). It's a reasonable trade-off, even if the extreme weather is too infrequent to shape the game as much as was vaunted.

## CHEAP THRILLS

*Just Cause 4* ups the excess just enough to get away with the fact that its groaning framework feels about one firm tether yank away from collapsing. It still delivers the kinds of uniquely gamey thrills that seem to have been serendipitously borne of gravity-defying glitches, but when the smoke finally clears and you regain your senses, the underlying shonkiness of the missions and the basic nuts-and-bolts are laid bare.

With so much adventure-holiday-with-guns fun to be had here, it's frustrating that Avalanche is content to just gloss over existing issues rather than fix them (couldn't the studio even have looked at its own *Mad Max* game for ways to improve the way vehicles handle or melee combat?). *Just Cause 4* still taps into that streak of reckless abandon that resides in all gamers, but its impact is softening. I have a good several hours of tethering tomfoolery left in me, but once I put it down, I can't see myself returning to this series until it gets the refurbishment it deserves. ■

**PC GAMER VERDICT**

**Still delivers the series' sandbox mayhem, but the game is underserved by a dated framework and some loose design.**



# ROLL UP

**KATAMARI DAMACY REROLL** finally brings a cult classic to PC. *By Philippa Warr*

**K*atamari Damacy* is ridiculous. It's a vast amount of good ridiculous, with a smattering of bad ridiculous, which serves to remind you that it's a game that's very much from a previous console era. You, the minuscule Prince of the Cosmos, must help your father, the incredibly buff King of the Cosmos (also unsubtly well-endowed thanks to a pair of spray-on trousers) repair the night sky.**

There is no prophesy to fulfil, no monster to thwart. Instead, the sky was ruined by your father partying a little too hard the previous night and now he's grumpily pressing you into service to fix it.

If you stop to examine the story, it's pretty bleak. The King treats his son terribly, gets out-of-control drunk, and won't face up to his responsibilities. But *Katamari Damacy* isn't a moral lesson or an exploration of that experience, it's an absurdist roll-'em-up. The King is a toddler, directing your missions, and the Prince is a silent cursor which you use to push a ball in different directions around the world.

The *Katamari* series' whole schtick is using a knobbly ball – a katamari – to collect *stuff*. You start off rolling the ball over drawing pins, caramels, stamps and other doodads, adding each one to the ball. As you accumulate this mixture of treasure and trash, the katamari gets larger and can start to roll up even bigger objects. A snail which earlier in the level sent me flying is now jammed in amongst the mess with the pencils, magnets and cherries.

While your initial outing starts with matchsticks and coins as the fodder for your ball, by level five you've skipped forward to quail eggs and nine-volt batteries, and by level nine it's hams and kids' wellies.

**The levels are replayable so you can retry them over and over again**

The main missions all take a similar form; roll a certain size katamari to repair a star and then spend the rest of the level's time limit becoming as large as possible. I particularly love spotting weird scenarios before I roll them up – two crabs with water pistols having a standoff on the porch was one, the mechanical monkey-with-cymbal ensemble was another.

Interspersed with these are the constellation missions where you have to fulfil a themed objective. In the Pisces mission it's rolling up as many fish as possible, in Cancer it's crabs, and in Cygnus it's swans. Taurus and Ursa Major are trickier. In these you need to collect just one cow (or bear) but you want it to be the largest possible. That means collecting objects for a big katamari while avoiding rolling over anything cow (or bear) related until you're large enough to take on your target. I hate these missions because it's not just the actual creature you need to avoid. In the case of Taurus, you also need to dodge cartons of milk and signs which are protesting against cows because they both have cow print on them.

All of the levels are replayable so you can retry them over and over again to beat your own scores. They have generous time limits so it's not the frantic score-beating you get in some games, it's far more soothing.

### DROPPING THE BALL

On the negative side I have a short list of gripes: the two-player battle mode is boring as hell. You have to go through the tutorial before you can fiddle with the resolution, so on a modern monitor you're stuck with a windowed display until then. I also couldn't switch to a controller until I got past the tutorial and the keyboard controls are... really quite something. I mean, for a speed boost you need to alternately tap W+K and S+I quickly. I really do not advise using the keyboard controls.

I mostly felt the game's age whenever gender popped up, though. There's a Virgo level where you collect maidens and encyclopedia descriptions of men and women hinge around outdated stereotypes – a woman dieting for a bikini body, and men banished from the house for golf practice.

These gripes aside, *Katamari Damacy* still feels fresh and fun. It's weird in a way that doesn't feel forced and the joy of rolling up a cat which previously towered above you, watching its little legs kicking about, is as pure now as it was in 2004. ■

### NEED TO KNOW

**WHAT IS IT?**
A cult game about rolling over junk to pick it up and get big.

**EXPECT TO PAY**
£16

**DEVELOPER**
Namco, MONKEYCRAFT Co. Ltd.

**PUBLISHER**
Bandai Namco

**REVIEWED ON**
Core i7-5820k, GTX 970, 16GB RAM, Windows 10

**MULTIPLAYER**
Yes

**LINK**
www.bit.ly/katamaripc

### OBJECT ORIENTED *Excerpts from the Katamari encyclopedia*



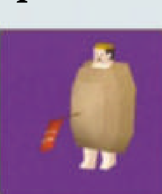
**BEETLE FIGHT**
"These fight with their jaws and horns. It's a serious contest. "



**MERMAN**
"Everybody loves a mermaid. Not so with a merman."



**TOILET PAPER**
"Paper you use in the bathroom. You need to cut it off at a certain point."



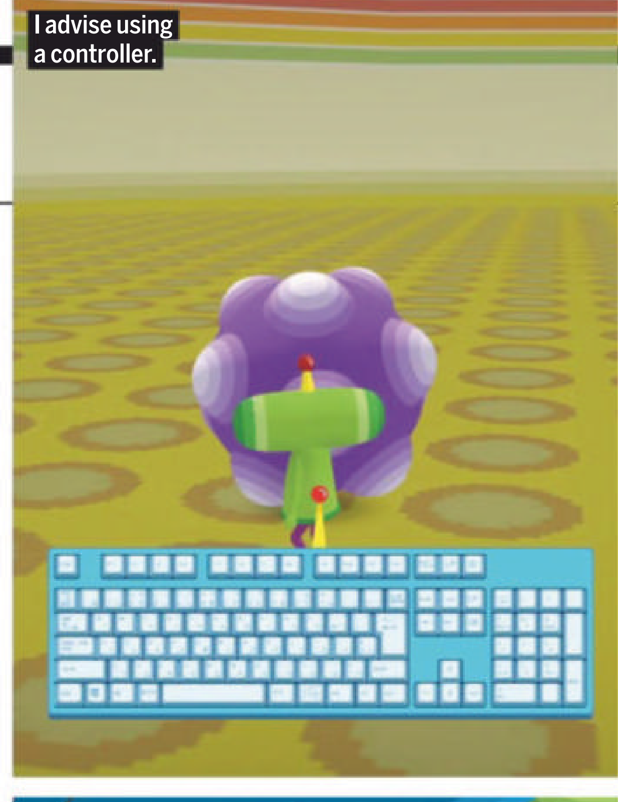
**SANDPILE**
"He is being buried in the sand by his friends, and he is loving it."

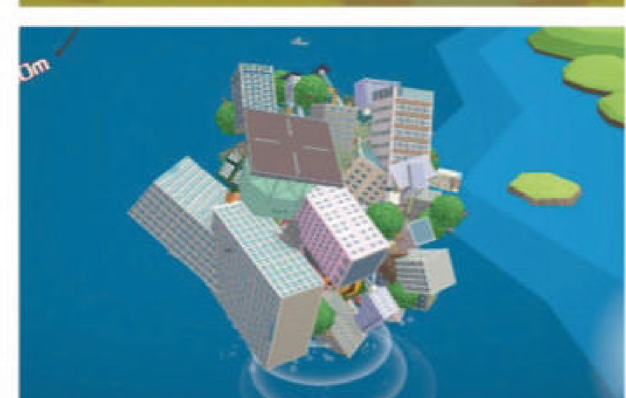


PC GAMER VERDICT

Weird and inventive. *Katamari Damacy* isn't perfect, but it holds its own impressively well 14 years on.

**85**


I advise using a controller.

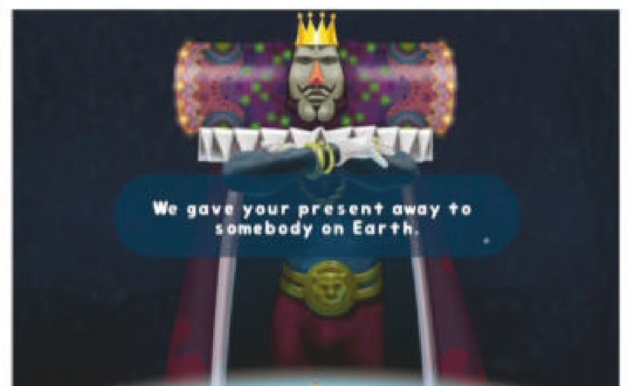



A rainbow sick stream means it's hometime.



Rolling up Christmas decorations and sparrows.


A nice wheelbarrow of cats on the right...









Almost ready to roll up that kitty!

# CONTROL FREAK

**MUTANT YEAR ZERO: ROAD TO EDEN** is a tactics game that adds new mutations to the *XCOM*-like. *By Alex Wiltshire*

**Let's get it out of the way. Yes, that's an anthropomorphic pig and a duck, and yes, you can play as a fox, too. Ha! But you'll forget their inherent ridiculousness as you start to explore *Mutant Year Zero*'s skeleton-strewn Sweden and face its stern tactics challenge. Very quickly Bormin was simply my gruff stalwart tank, Dux my sharp-eyed, crit-dealing sniper, and Farrow my sneaking shotgunner. God, I love that gang.**

Let's get the other thing out of the way: the setting is third-hand *Stalker*. But again I forgot it as I got to grips with *Mutant Year Zero*'s meeting of real-time exploration and turn-based strategy. Here's the idea: the world is divided into lots of discrete but connected areas as you set out to find a member of your settlement, The Ark, who's gone missing. You'll encounter enemy encampments, weapon chests, scrap caches and weapon parts, which act as currency to buy gear and upgrade weapons back at the Ark, to which you can fast travel.

This setup gives the world a coherence that's lacking in most turn-based strategies, but it also means that between fights you must ponderously run through undergrowth in search of the scrap you'll need to afford vital medkits and grenades. The environmental detail often repays the time spent exploring, but I wish movement was faster so I could get to the tactics meat of the game more quickly.

*Mutant Year Zero*'s key addition to the *XCOM* format is stealth. And it makes a huge difference. Combat starts either when you purposefully initiate it or if you blunder into an enemy's awareness radius, which you can make smaller by crouching. This presents an opportunity to twist the encounter to your advantage by scouting the area to find vantage points, and it gives a fantastic sense of involvement in the ensuing fight, because so much results from the situation you set yourself.

Take one encounter I fought in a city. I found Dux could get into a building and take a position upstairs with a great view of the street, while below Bormin and Farrow acted as bait for raiders who streamed out of their base and into Dux's rifle sights, each shot bolstered by the accuracy and critical bonuses he got from having a height advantage.

> **Each character's skill tree pushes it into specialisms**

Bormin, meanwhile, used his Stone Skin mutation, or skill, to shrug off damage and Farrow used Sneak to get around the flanks and Silent Assassin to raise her critical chance. Each character's skill tree pushes it into specialisms, and some skills are wonderfully baroque: Moth Wings allows Dux and Farrow to take flight for the duration of their shot, giving better lines of fire, while Selma's Tree Hugger can root enemies to the spot.

## NEED TO KNOW

**WHAT IS IT?**
A tactics game in which you play as mutants exploring a post-apocalyptic Sweden

**EXPECT TO PAY**
£30

**DEVELOPER**
The Bearded Ladies

**PUBLISHER**
Funcom

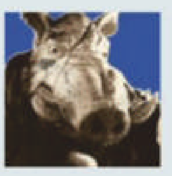
**REVIEWED ON**
Core i5-6600K, GeForce 1070, 16GB RAM

**MULTIPLAYER**
None

**LINK**
www.mutantyearzero.com

## SKILL SET

*Here are my favourite mutant mutations*

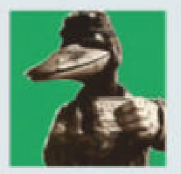


**BORMIN**
I like my pig to get up close.

**Major Mutation:** Hog Rush
Can destroy cover and knocks out enemies for a turn

**Minor Mutation:** Run 'n' Gun
Enables an action after sprinting

**Passive:** Spore Cloud
Emits smoke when you're damaged

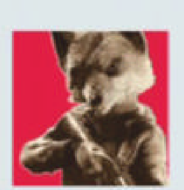


**DUX**
My duck rains down fire from above.

**Major Mutation:** Moth Wings
Sprouts wings and allows you to fly

**Minor Mutation:** Knee Shot
Disable an organic enemy's movement for two turns

**Passive:** Alpinist
50% critical chance when shooting from high ground



**FARROW**
Hit hard, um, like a fox?

**Major Mutation:** Frog Legs
Jump to any location in range

**Minor Mutation:** Sneak
Sneak between cover

**Passive:** Silent Assassin
Doubles your critical chance whilst hidden

## SILENT TREATMENT

I also found a lot of mileage in ambushing stragglers, using quiet weapons such as the crossbow to take them out before they called for help. Well, initially anyway. Tooltips remind you how important this strategy is, but against higher level enemies you can't deal enough silent damage to kill them in a turn and everyone in the vicinity is alerted.

In fact, *Mutant Year Zero* too often leans on adding HP to enemies to raise the stakes. There are a good number of different types, from Molotov-throwing pyros to telekinetic leaders, medbots and armoured tanks. Each demands different strategies, but by the mid-game most are introduced and I found the majority of the challenge came in figuring out how to eke more damage out of my weapons. The answer lay mostly in fussy fiddling with add-ons to raise critical limits and give chances of setting raiders on fire and EMP-stunning robots.

And then the game ends. I found the story fulfilling enough. But in the 15 hours it took me to complete on Normal, I'd only just bought a couple of late-game skills and had barely used the other two characters; I wanted a chance to explore them. Coupled with bugs which sometimes made upper floors invisible and made me confused about where I could move my characters to, I felt *Mutant Year Zero* isn't quite finished.

While it lasts, *Mutant Year Zero* is a tense, absorbing and atmospheric new member of the *XCOM* family. I suppose wanting more of it is a good problem to have. ■

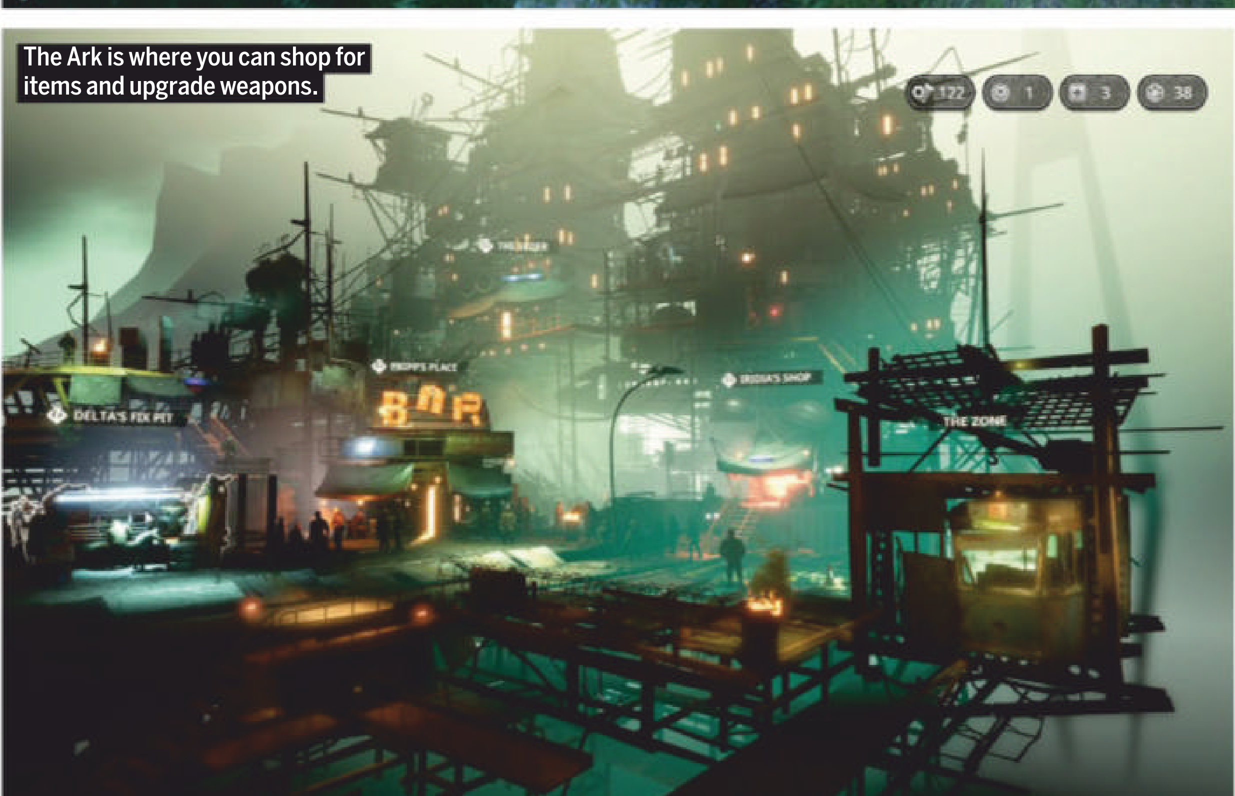
**PC GAMER VERDICT**

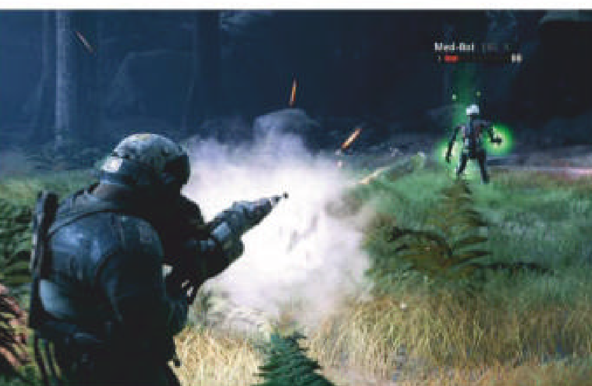
**Its mix of tense tactics and real-time exploration gets much right, but *Mutant Year Zero* doesn't feel quite finished.**





Crouching reduces the size of the enemy awareness radius.

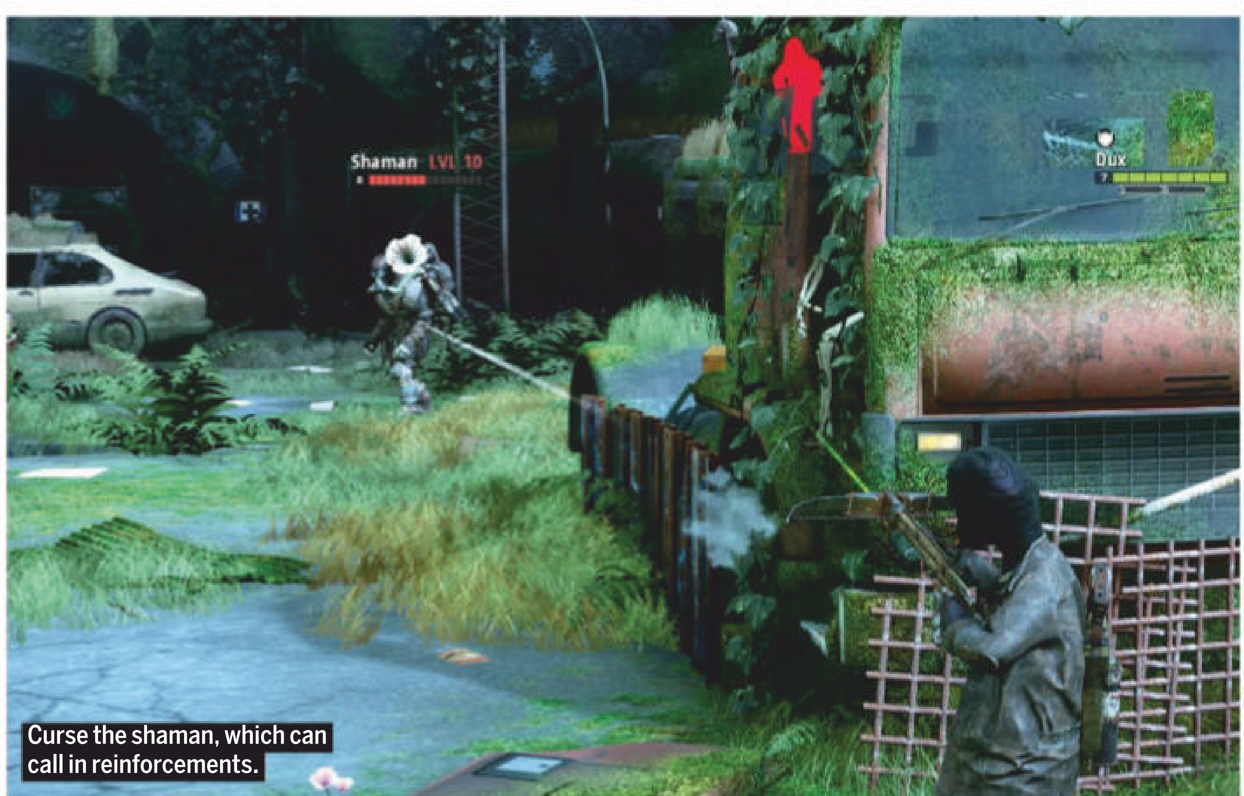

The Ark is where you can shop for items and upgrade weapons.




Optional areas on the map usually hold artefacts.



There's some welcome environmental storytelling.



Curse the shaman, which can call in reinforcements.

# CULT HIT

## WARHAMMER 40,000: MECHANICUS succeeds by embracing the weird. *By Tom Hatfield*

**A few years ago, Games Workshop loosened its grip on the Warhammer 40,000 setting, and the result has been a glut of small-budget games set in the grim darkness of the far future. The quality has been mixed, but every so often a game like *Mechanicus* comes along that uses the opportunity to explore a previously neglected corner of the Warhammer universe, and makes it all worthwhile.**

The Adeptus Mechanicus are, in many ways, the perfect encapsulation of what Warhammer 40,000 is about, a bizarre Gothic fusion of tech and religion. They are the chief scientists of the Empire, but treat science like a religious cult. *Mechanicus* translates this unusual faction into a tactics game, and does so wonderfully, oozing character from every pore.

The story is framed by a group of high-ranking tech priests who are constantly debating each mission. They're all wonderfully quirky characters: Scaevola has removed so much of their humanity they now speak in equations, the devout Videx believes ignorance is strength, meanwhile their leader, Faustinius, has quarantined their emotions. They're *Mechanicus*' great strength, and I came to truly treasure their bickering.

The Adeptus Mechanicus are pitted against another of 40K's weirder factions, the Necrons: slumbering Egyptian-themed terminators from the beginning of time. The tech priests' mission is to investigate this tomb before the Necrons awaken. The missions themselves consist of a series of raids on tombs. You explore the dungeon's rooms, with little choose-your-own-adventure vignettes popping up in each. The choices presented in these rooms are rarely interesting, and their outcomes seem largely arbitrary, and in the end they just become filler between each fight.

> **There's no such thing as cover, which makes combat fast and lethal**

Things become more interesting in battle. There's no such thing as cover, which makes combat fast and lethal, initially for the tech priests and then later, after a few upgrades, for the Necrons. Combat revolves around a currency called cognition, which can be earned by scanning obelisks and corpses, as well as lots of other methods, and can be spent on things like extra movement or more powerful actions. One of my tech priests was equipped with a bunch of melee boosting equipment. He mostly spent his cognition on extra movement, sometimes racing the length of the map to thwack a robot in the face. Another wielded powerful energy weapons that required cognition to fire, meaning he camped near obelisks to replenish the group's supply.

### NEED TO KNOW

**WHAT IS IT?**
*XCOM* with gribbly robot men.

**EXPECT TO PAY**
£23

**DEVELOPER**
Bulwark Studios

**PUBLISHER**
Kasedo Games

**REVIEWED ON**
Core i5, GTX 970, 16GB RAM

**MULTIPLAYER**
None

**LINK**
www.bit.ly/mechanicius

### CALLING REINFORCEMENTS

Another thing cognition can be used for is to summon troops. These units can't be levelled up and customised, they get dropped on the battlefield mid-combat, and can only perform simple actions like moving and attacking. At first the only troops available are weak servitors that exist mostly to take hits for the tech priests, but later on more powerful variants are unlocked. You can invest as heavily or as lightly into troops as you like, I gravitated towards ranged units like the Skitarii, which combined neatly with a support priest I'd built with the ability to let them fire a second time on his turn.

The tech priests themselves are incredibly customisable. Each one can attach various strange gizmos, and has six skill trees to mix and match. I went heavily into Explorator (melee), Dominus (ranged) and Enginseer (healing), but there were plenty of other options available.

If anything, this customisation can get to be a bit too much. By the time the Necron awakening timer had hit as little as 30% my tech priests had levelled up so much they were killing Necrons in one hit. I was still having fun while winning, I'd just substituted challenge for efficiency, as any true tech priest would. That, plus a love of bickering cyborgs, is what keeps me coming back. ■

### SELF-MADE MAN

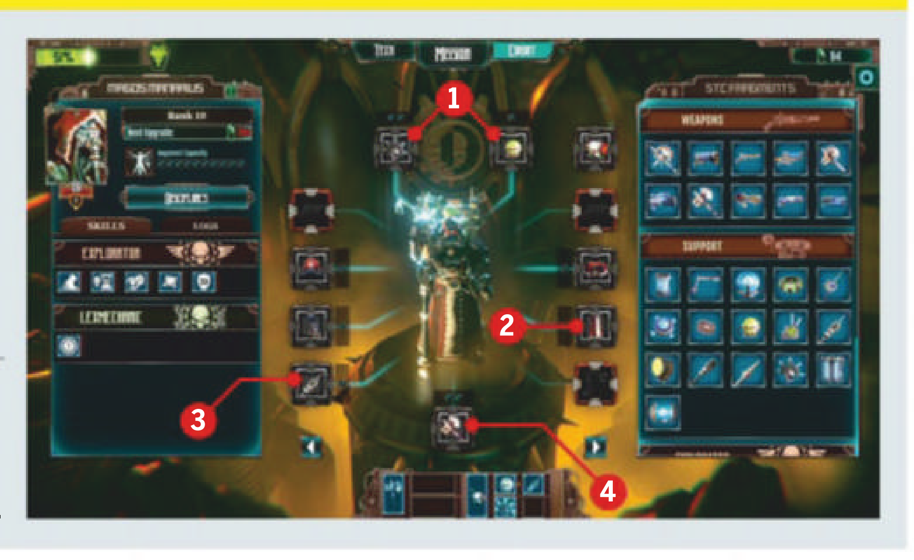
***How to create an axe murderer***

**1** These gizmos power up Manarius' melee attacks.

**2** The robes make him run faster. Don't ask how, they just do.

**3** This pokey robo-arm jabs people for a little extra damage.

**4** The cog-shaped axe hurts when you smack someone with it.




**PC GAMER VERDICT**

A diet *XCOM*-style strategy game with some great characters in a fascinating techno-cultist skin.

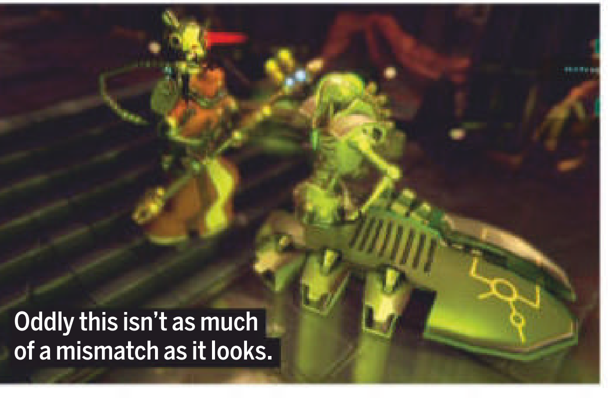


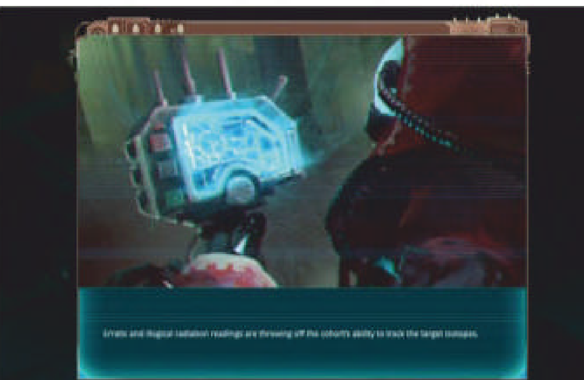


Volkite Blasters: point at the thing you want to disintegrate.



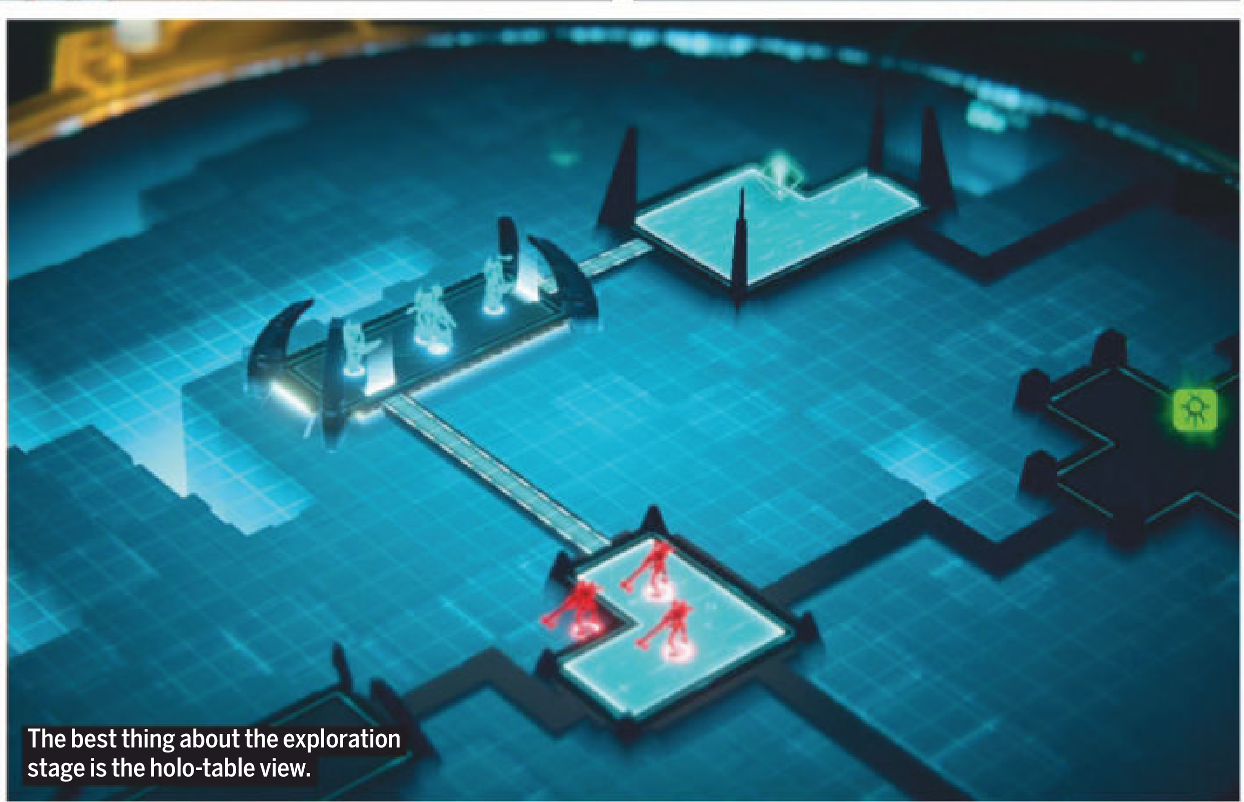
Dominus is Latin for 'pew pew'.


Oddly this isn't as much of a mismatch as it looks.





Videx is my second favourite.


The best thing about the exploration stage is the holo-table view.

# LANING DAY

## Is Valve's ARTIFACT a *Hearthstone* killer? *By Will Bindloss*

**Heroes are *Artifact*'s defining element. You get five per deck, and three of them start on the board – one in each of the three lanes. There are four colours that make up the cards in your deck – red, green, blue and black. If you want to play a red card, you need a red hero in that lane. Heroes assault your opponent's towers and protect yours, and they bolster your deck with signature cards. You protect them and they protect you. When they die, you're usually sad.**

Much like a game of *Dota*, winning in *Artifact* is all about making sure your heroes are in the right place at the right time. Regardless of their starting positions, which are chosen at random, heroes will shift from lane to lane over the course of the game. When a hero dies, it takes a turn on the bench before becoming available for redeployment in any lane. *Artifact*'s main win condition is destroying your opponent's tower in two of the three lanes, so usually you end up giving up one lane in a bid to maintain dominance of the other two. Of course, your opponent is trying to do the exact same thing, so every game is a constant push and pull as you try to outmanoeuvre each other and hold onto an advantage.

Extra complication is added by a secondary win condition: destroy the tower in one lane and your opponent's Ancient will be exposed. Do 80 damage to that (basic towers only have 40 health, for comparison) and you win on the spot. This is an elegant design decision, as it rewards creative thinking from the player who's fallen behind.

In one memorable example, I was in a dominant position, on track to destroy the towers in two lanes while the majority of my opponent's heroes were out for the count. While I'd been focusing on my two winning lanes, however, my opponent had been quietly committing her resources to the first lane. I was set to deliver lethal damage on her other towers on my next turn, but I'd forgotten a crucial detail: her three heroes were about to respawn. She deployed them all in lane one and went ham on my defenceless Ancient, killing me before I had a chance to end the game myself.

> **Players trade actions back and forth, hot potato style**

### THREE AND EASY

Much has been made of *Artifact*'s complexity. It's certainly true that a lot of the game's concepts will be new to even seasoned card game players. In addition to the three-lane setup, *Artifact* also has a *Dota*-inspired item system – every turn, there's a purchasing phase where players can spend gold earned from hero and creep kills on items to buff up their heroes. And then there's 'initiative', which sees players trade actions back and forth, hot potato style, with the last player to act ceding their initiative to the opponent when play moves to the next lane. A lesson I learned the hard way.

All that said, I'm not sure *Artifact*'s learning curve is as steep as you might expect. The tutorial, while on the brief side, does a good job of explaining the basics of how to play. I wasn't 100% sure on all of the nuances after I'd finished training, but I definitely knew enough to muddle through. It helps that *Artifact*'s turn structure follows a predictable rhythm of hero deployment, rounds of combat in each of the three lanes and item-shopping at the end. I got the hang of things quite quickly.

Valve has done a great job crafting *Artifact*'s visuals, too. Mischievous imps dart around the board, shipping the decks from lane to lane, wincing when your life total is low and guffawing when you apply the lethal blow. Is *Artifact* as visually appealing as *Hearthstone*? It's close, but my vote would still go to Blizzard's game. *Artifact* has a few impressive card effects, but none match the sheer variety of *Hearthstone*. Valve has also opted not to take the ultra-interactive approach to game board design that *Hearthstone* favours – so there are no clickable objects to play with while you wait for your opponent to act. You get the feeling that Valve wanted the game to be front and centre.

### LETTING THE DRAFT IN

Honing your deckbuilding skills is essential to mastering *Artifact*. And nowhere are those skills more critical than in draft, which is already being touted as *Artifact*'s primary competitive mode. The basic structure is this: you select 60 cards »

### NEED TO KNOW

**WHAT IS IT?**
A competitive card game themed after *Dota 2*.

**EXPECT TO PAY**
£16

**DEVELOPER**
Valve

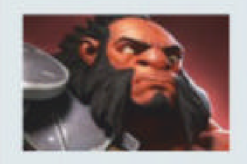
**PUBLISHER**
In-house

**REVIEWED ON**
Core i5-3570K, GTX 1060 6 GB Mini, 8GB RAM

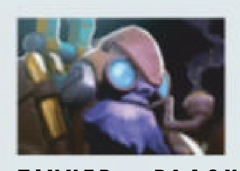
**MULTIPLAYER**
One-on-one

**LINK**
www.playartifact.com

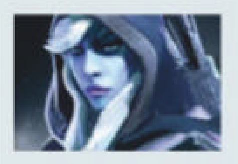
### COLOUR CODED *Each colour's best hero*



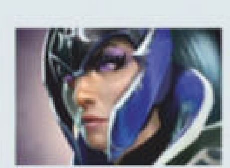
**AXE – RED**
A murder machine. Axe has bonkers stats and a signature card that lets him fight three enemies at once. Costly for a reason.



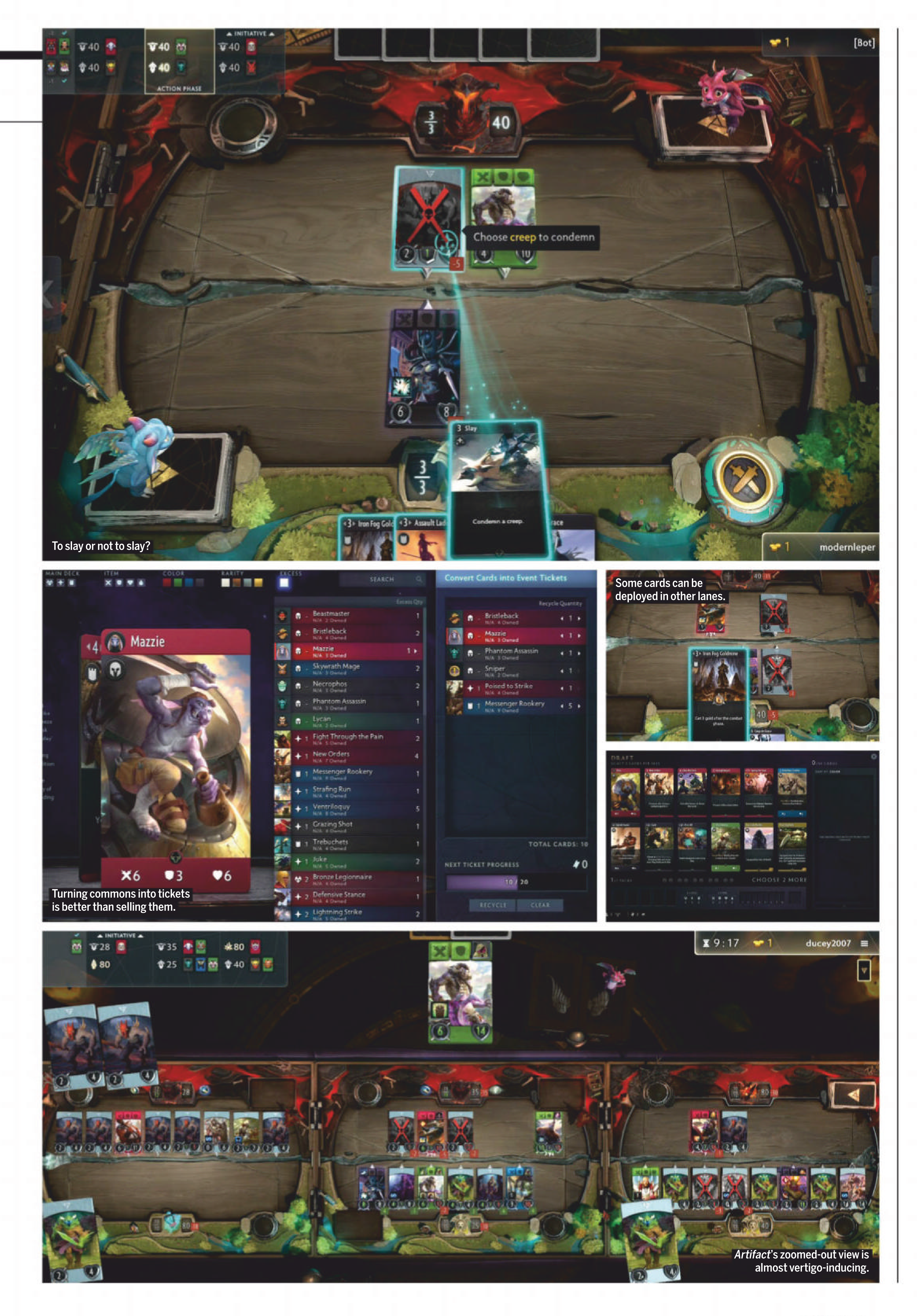
**TINKER – BLACK**
Tinker's crowd control sets him apart. His laser is a menace to heroes, dealing damage and preventing them from attacking.



**DROW RANGER – GREEN**
Wins you games simply by being alive. Her ability passively buffs up all of your units.



**LUNA – BLUE**
Most of Luna's strength is centred on her signature card, Eclipse. It starts off weak, but powers up every turn Luna is in play.

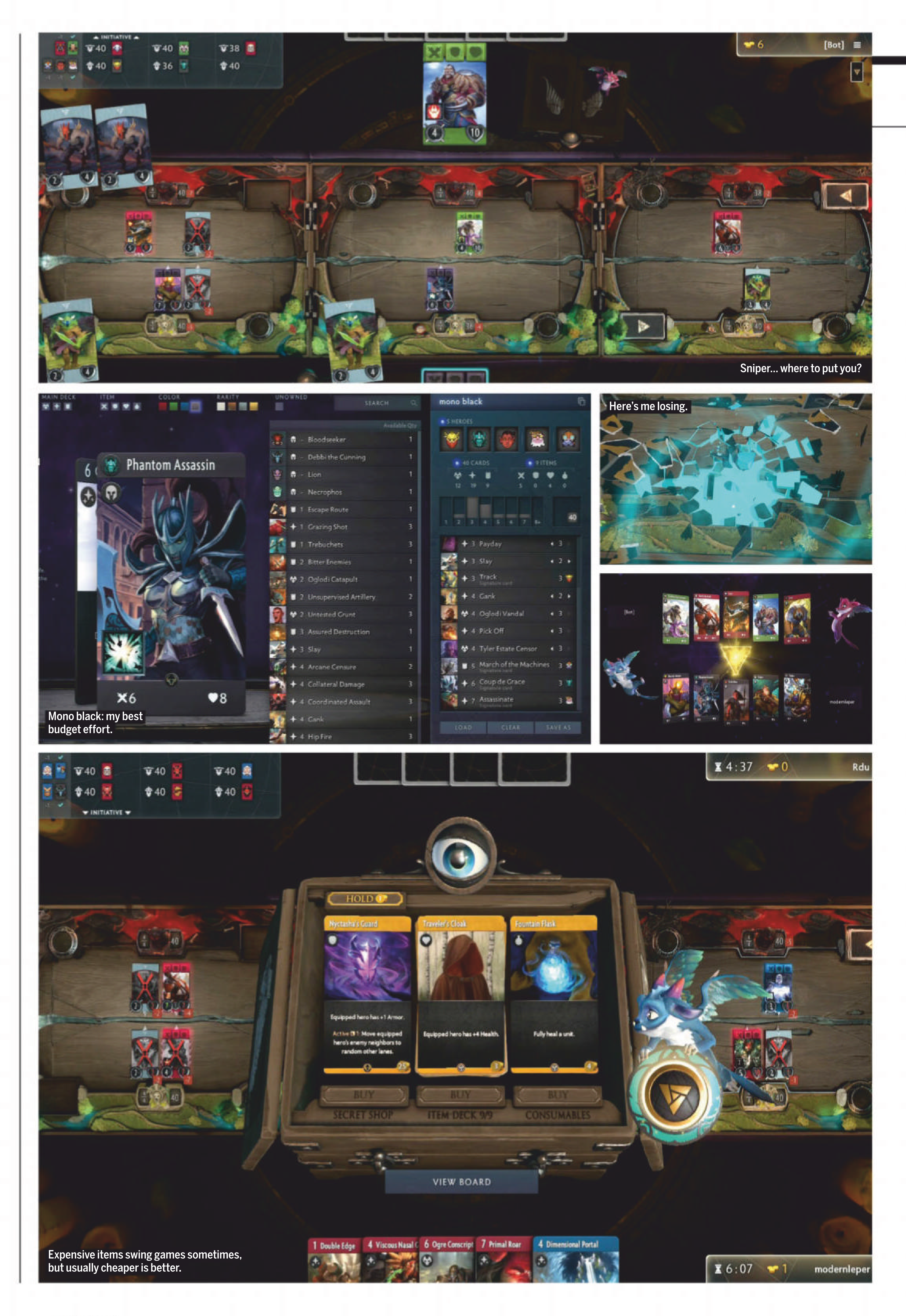


To slay or not to slay?

Turning commons into tickets is better than selling them.

Some cards can be deployed in other lanes.

*Artifact*'s zoomed-out view is almost vertigo-inducing.



Sniper... where to put you?

Mono black: my best budget effort.

Here's me losing.

Expensive items swing games sometimes, but usually cheaper is better.

from five 'packs' presented to you, whittle that pool down to a playable deck, then play games until you either win five or lose two. Rewards, which come in the form of more entry tickets and card packs, are available depending on how well you do. There's also a casual draft mode, which allows you to practice with no entry fee – but you won't win anything if you do well.

Drafting in *Artifact* is a skilful business. The pro players in the game's burgeoning competitive scene are trying to come up with sound logic on how best to pick, some even putting together tier lists that rank all the cards in each colour. However, there are so many judgement calls to be made in a draft – which colours to lean heavily into, whether to pass up on a hero in order to wait for a better one, getting a healthy curve of mana costs – that no resource is a substitute for experience.

Since every colour has different strengths and weaknesses, how you construct a deck depends very much on your own playstyle. I'm an aggro player, so I've found myself gravitating towards red and black – both colours that excel at establishing early dominance and rushing down your opponent's towers. The beauty of the mode is that it allows you to identify the synergies between cards and colours, and then see them come to fruition. Every draft is different. I remember one time I made the last-minute call to integrate blue into my draft deck because the powerful hero Zeus appeared in a late pack, and the devastating effect of his hero-zapping signature card turned what would have been merely a good deck into an excellent one. The potential for creative thinking in draft is massive, and there's satisfying progress to be found in building up your knowledge one run at a time.

**There are so many judgement calls to be made in a draft**

## COSTLY CONSTRUCTED

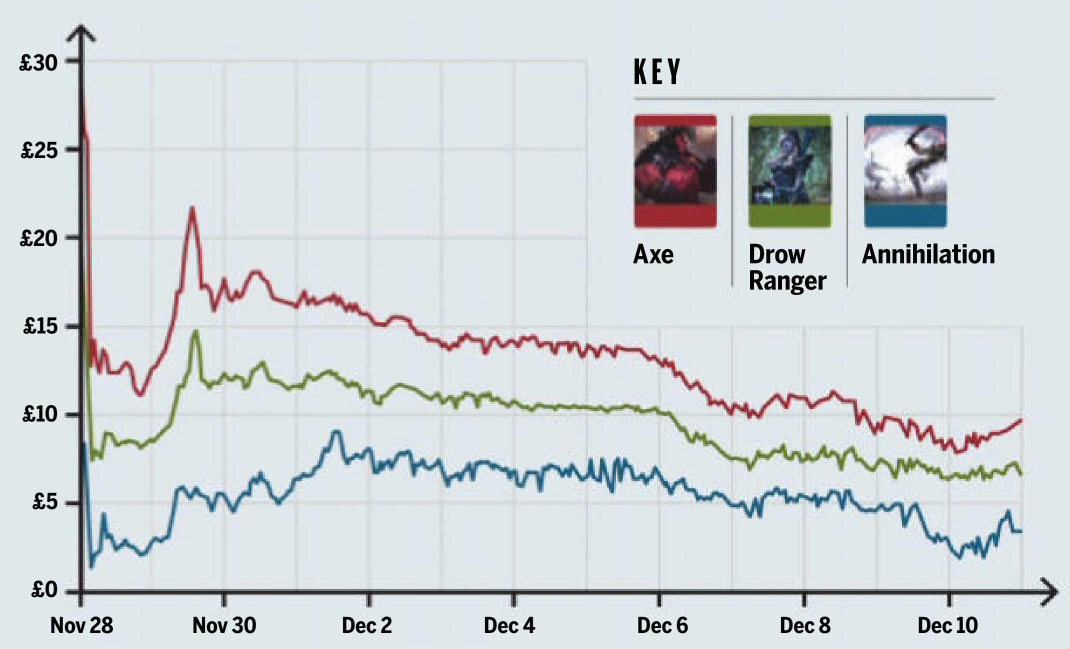
After bolstering my collection from a few drafts, I shifted my focus to *Artifact*'s constructed modes, where you build a deck with the cards you own. Much like draft, there's a casual mode for stakes-free fun, and an expert mode that offers rewards in exchange for an entry fee. My first attempt at deckbuilding was a red-green midrange build cobbled together from cards that had done well for me in draft. Not particularly confident, I opted to test it out in casual before putting my event tickets on the line. This turned out to be a good choice. Far from being the meta-breaker I hoped it would be, my deck was actually terrible, and I got roundly destroyed in my first game.

My opponent's deck, however, was not terrible. It was amazing. As well as having both Axe and Drow Ranger, the two most sought-after heroes in the game, it also contained some of the most expensive rares. Now, it's possible I could have found a way to win if I'd chosen the cards more carefully from my own deck, but it was still hard to escape the feeling that I'd lost because I'd spent less on card packs.

*Artifact* allows you to buy and sell your cards for real money via the Steam Marketplace. This, theoretically, should allow players to get the cards they need without any massive outlay on packs. This system comes with upsides and downsides. One positive is that it's extremely easy to get hold of playsets of all the common cards, many of which are quite powerful. Strong uncommon cards tend to be more expensive, but it's the strong rares that get really pricey. Axe and Drow Ranger, those two heroes that caused me so much distress earlier, cost £10 and £7 respectively at the time of writing.

## MARKET CRASH *How card value changes over time*

***Artifact*'s in-game economy lets players buy and sell cards on an ever-fluctuating market. The best cards are quite pricey – but they seem to be becoming less so. Overpowered heroes like Axe and Drow Ranger have lost their value quicker than non-hero cards, possibly because you can only have one of them per deck.**




This isn't to say spending money is mandatory if you want to enjoy *Artifact*'s constructed mode. I ended up doing pretty well with a mono black deck made out of cards I had already, plus a few I picked up from the marketplace at a minor cost. Still, I doubt I'll be content with budget options forever. Coming from a card game background, I'm likely to just spend the money required to unlock the cards I need to be competitive. The only reason I haven't is that I haven't gotten bored of drafting yet, and I'd rather wait to see if I get the cards I need from my reward packs than buy them now and risk their value dropping. I'm aware, however, that I'm not necessarily the typical *Artifact* player. For some, that extra cost on top of a £16 purchase price is going to really sting.

Given the above, any conclusion I make about *Artifact* is going to come with some qualification. Value for money, I'm well aware, is going to be a big factor for many looking to buy the game. But the strength of the design will be enough to keep me hooked. Not only is *Artifact*'s depth remarkable, it also doesn't come at any great loss of accessibility. I'm excited to see the metagame develop over the coming weeks and months. Let's just hope Axe's price comes down a bit. ■

**PC GAMER VERDICT**

**Building the best decks will cost you, but *Artifact* is far too intricate and rewarding for fans of the genre to resist.**



# COASTING

**PARKITECT** is a worthy successor to *Rollercoaster Tycoon*, but never emerges from its shadow. *By Rick Lane*

***Parkitect* is pleasant to the point where it turns into a problem. Its gentle pace and inoffensive aesthetic makes it easy to get sucked into and spend a good amount of time with, but its desire to please also makes *Parkitect* rather risk averse. In a year that has witnessed some bold and innovative management sims, *Parkitect* plays too safe to stand out from the likes of modern hits such as *Megaquarium*.**

The game negotiates a pleasing balance between building and maintaining your theme park. Beyond the constraints of budget and available rides, you are free to create your park however you like. You can fill your park with standard rides and user-created coasters, or get hands-on with every detail, sculpting terrain, tweaking the turns and loops of every coaster, and constructing your own facades and decorations out of geometric shapes.

Creatively, *Parkitect* is sufficiently robust, although less powerful than the toolset of *Planet Coaster*. Paths can only be built in straight lines, while terrain cannot be manipulated with much fidelity. Where *Parkitect* has the edge on its rivals, however, is in how it challenges you to think harder about the layout and upkeep of your park.

*Parkitect* boasts a similar system to *Megaquarium*, whereby your visitors don't enjoy seeing how the sausage is made. Your park's overall rating partly comes down to its 'immersion' factor, which is damaged when John and Jane Middleclass see some poorly paid labourer stuffing boxes of frankfurters into the back of your $7 hot-dog stand.

You can avoid visitors witnessing the horror of capitalist exploitation by careful placement of special 'Employee' paths, which can be concealed with decorations like hedges and fences. Alternatively, you can build a network of supply depots connected by underground tubes to ferry stock around the park, then use haulers to transport the stock from depot to the stalls. It's more efficient, but also more expensive.

These hints of strategy are complemented by a robust simulation where everything that happens in the game has a tangible impact on the status of your park. If your park is accosted by vandals, you can see them running around kicking over bins and benches, and this will impact your park's 'dirtiness' rating. Meanwhile, if a storm passes over your park, rides will be shut down and your profits will start to tumble.

> ***Parkitect*'s coaster building feels positively Neolithic**

*Parkitect* isn't short of stuff to do. Alongside the sandbox mode, the campaign includes 26 different parks to build, each of which has its own unique set of challenges. There are also dozens of rides to unlock, and the coaster selection is particularly impressive, ranging from simple junior coasters to log flumes, flying coasters, and even a bobsled run.

**NEED TO KNOW**

**WHAT IS IT?**
A by-the-numbers theme park simulator with robust systems and plentiful content.

**EXPECT TO PAY**
£24

**DEVELOPER**
Texel Raptor

**PUBLISHER**
In-house

**REVIEWED ON**
Core i5-3570K, GTX Titan, 16GB DDR3 RAM

**MULTIPLAYER**
None

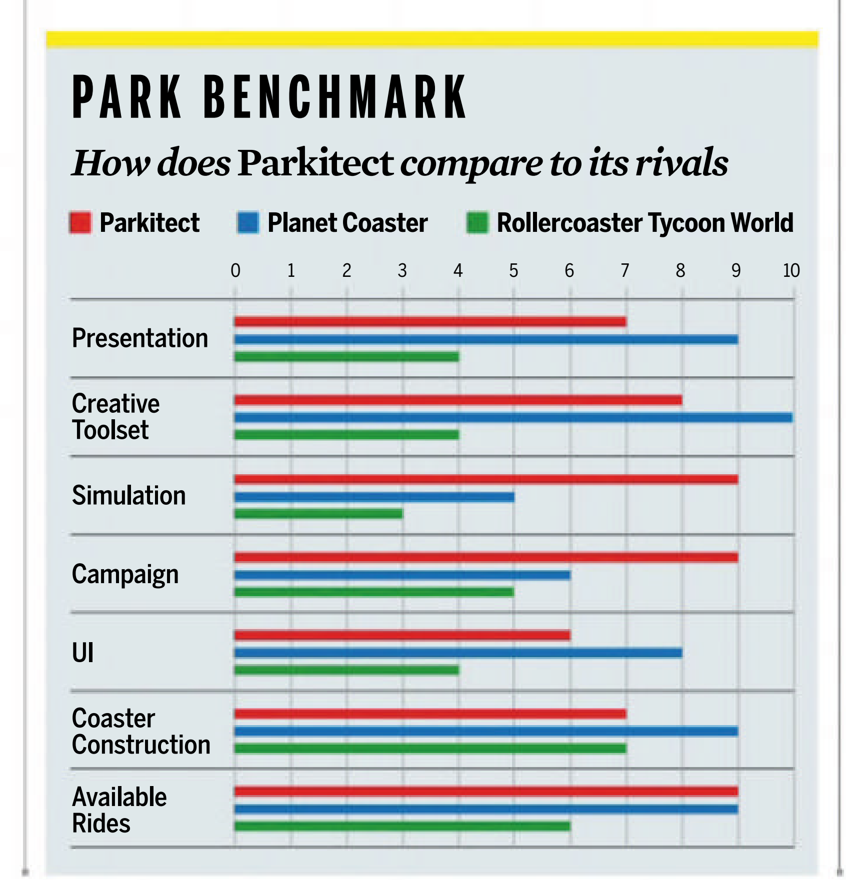
**LINK**
www.theme parkitect.com

You can't fault *Parkitect* for its generosity, or for its cleanly designed simulation. Nonetheless, it does exhibit a few issues. Most prominent is the UI, which is poorly designed. There's no undo button, so any mistakenly placed objects have to be manually demolished. Meanwhile, *Parkitect*'s coaster building feels positively Neolithic compared to dragging and pulling out rides in *Planet Coaster*.

## FUN FARE?

More generally, though, *Parkitect*'s presentation is staid. I'm particularly nonplussed by the bobbleheaded characters, which makes your park look like it's populated by Funko Pops. *Parkitect* does take on more personality at night, when your rides are suddenly illuminated by hundreds of tiny lights, but these moments are fleeting.

*Parkitect* is the most well-rounded theme-park simulator of recent years. But if you look at the management sim genre more broadly, there's stiff competition. From the quirky and characterful *Two Point Hospital*, to *Megaquarium*, which has a similar structure (and visual style) to *Parkitect*, but applies it to a very different setting. Both those games bring something interesting and memorable to the genre. *Parkitect*, for all of its quality, is content to be a fairground attraction, fun and mechanically sound, but not something that you're going to want to queue up hours for. ■




**PC GAMER VERDICT**

*Parkitect* offers a well-constructed attraction, although it's a familiar ride and has been bettered elsewhere.

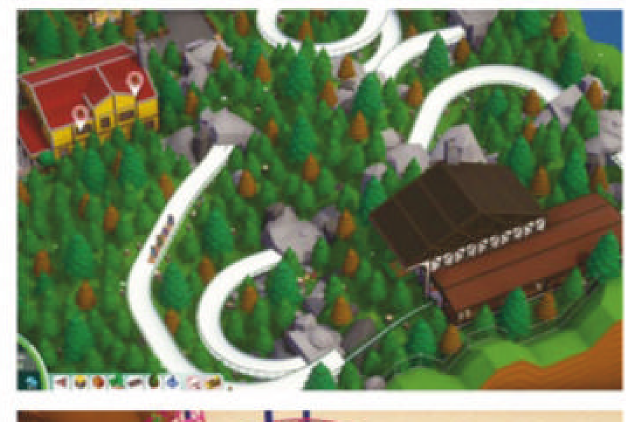
**77**

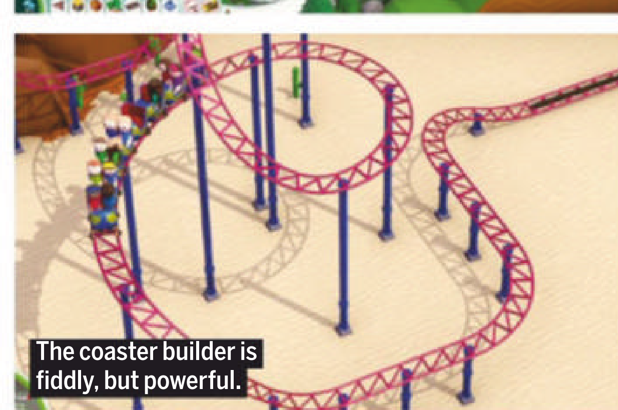

Visually *Parkitect* is quite bland. It comes to life at night, though.


The range of coasters is impressive.



You can alter the colours of any ride.




The coaster builder is fiddly, but powerful.


I like to put bins at the end of coasters for expectorative convenience.

# TOO OLD FOR THIS

## JAGGED ALLIANCE: RAGE

is all busywork and no play. *By Tom Hatfield*

***Jagged Alliance: Rage*** **is in love with busywork. At every stage of the game I'm bombarded with basic maintenance tasks, survival elements, weapon degradation and looting – so much looting. It wouldn't be so bad if there was more variety to the combat, but sadly I found myself using the same few tricks over and over.**

It works like this: you take your two mercs (you won't unlock another for hours) and liberate a jungle island one turn-based combat encounter at a time. Each merc is a bundle of skills and quirks. This is the game's biggest strength, as each character feels different, if not exactly balanced. Raven is a sniper who can't carry heavy weapons. This is more useful than Ivan, a tank whose bad knees hurt him every time he jumps down a step.

> **The story is as deep as it is original – which is to say not at all**

The story is as deep as it is original – which is to say not at all – yet takes up a surprising amount of time, full of conversations I quickly checked out from, but couldn't skip. It can't decide if it wants to be gritty (they're kidnapping children!) or cartoonish (they're mind-controlling people!). The mercs are, to put it charitably, a broad collection of national stereotypes. The one clever idea the game has is to emphasise how old they all are, but despite being prominent in the marketing, it doesn't come up often.

The fact that you only get two mercenaries to start with is important, because those opening few hours are brutal. I haven't played any of the previous *Jagged Alliance* games, so I don't know if they were always this hard, but even as an *XCOM* veteran I was initially worried I wouldn't be able to finish more than a few levels before my deadline. Things do get a little easier a few hours in when you've managed to scavenge some armour and healing items, but even then you're often saddled with awkward objectives that force you to take action before civilians are killed. The result is a game that often needs you to stealthily kill half the enemies on the map before you get spotted, which isn't easy when your two soldiers are often facing 20 guards – all of whom get alerted very easily.

It feels like a lot of the game's problems could be solved if I started with more mercenaries. The added firepower would make combat both easier and more interesting, giving me more than a couple of abilities to play with (there's no levelling up, and most equipment is just slightly better versions of the same few guns).

### NEED TO KNOW

**WHAT IS IT?**
Belated sequel to beloved turn-based tactics game

**EXPECT TO PAY**
£18

**DEVELOPER**
Cliffhanger Productions

**PUBLISHER**
Handy Games

**REVIEWED ON**
Core i5, GTX 970, 16GB RAM

**LINK**
jaggedalliance.com

### MAKING CAMP

The difficulty is also increased by the fact that there is no post-mission recovery. Your wounds from the last battle carry over to the next one unless you rest, which carries the risk of being discovered by a patrol. The only equipment available is that which can be laboriously looted from individual corpses and containers (the game is really crying out for a 'here's all the loot' screen). This survivalist aspect appears elsewhere too, with soldiers having to drink water, stem bleeding and fight off infections. I get the concept, they want to convey the idea of this scrappy team surviving in the jungle, but the reality is mostly just juggling several different consumable items to cure your various conditions.

There *is* an overmap, though, which enables you to traverse the island, moving your troops from node to node while pursued by enemy squads. In theory you can avoid these, especially as the game eventually gives you a squad of rebels you can use to delay them. In practice you'll almost always end up getting caught in a series of frustrating ambushes, especially as the troops move while you rest to heal up and repair your weapons. *Jagged Alliance: Rage* is in love with busywork.

Ultimately it is that busywork, coupled with the odd decision to give you such a low number of troops, that makes the game a slog. The good news is that we're living in a golden age of turn-based tactics games, and both *Jagged Alliance* fans and the rest of us can do better than a lukewarm game with a beloved name. ■

### WELCOME TO THE JUNGLE *An introduction to the island overmap*

**1 ALLIED**
Your rebel allies can delay enemy troops.

**2 TAKE A BREAK**
Resting is vital to heal, craft and repair your troops' weapons.

**3 ON THE MOVE**
Enemy squads can move once a turn, even when your own units are resting.




**4 STORY NODE**
A major objective, useful for advancing the story.

**5 SPAWN POINT**
A guard post, these continually spawn new armies until defeated.

**6 'OPTIONAL'**
An optional objective (but in reality you'll do them all).

**PC GAMER VERDICT**

**42**

Too hard, too dull and too much, *Jagged Alliance: Rage* is a sequel that doesn't live up to the success of its forbears.

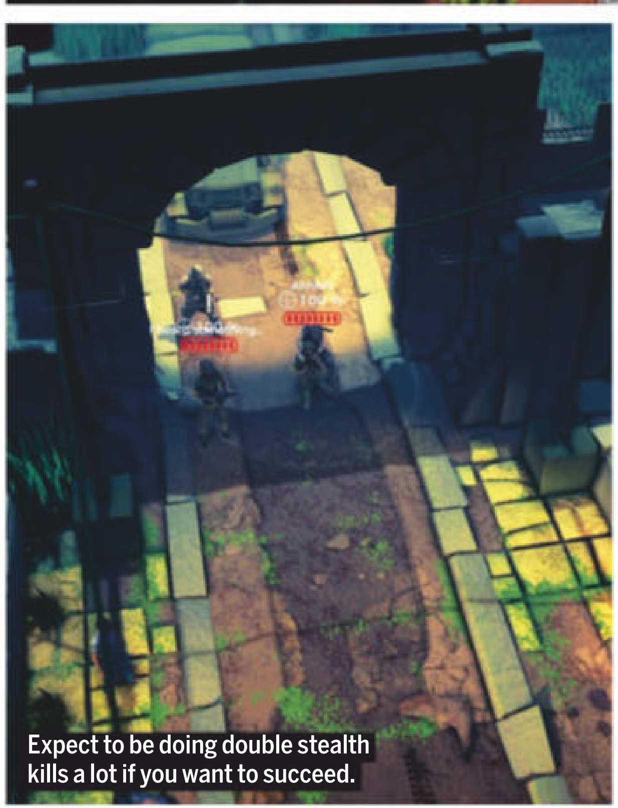


Grenades are oddly weak.


I don't actually know if having the high ground helps.



Sadly no, you cannot aim for the groin.


Expect to be doing double stealth kills a lot if you want to succeed.



Raven's sniping makes her one of the more useful mercs.

# LOOK OUT

## There's mystery but not enough magic in BELOW's brutal descent. *By Chris Schilling*

**Like a reverse-world version of Hideo Kojima's solar-powered dungeon-crawler *Boktai*, Capy's uncompromising roguelite demands to be played in total darkness. Here, you'll find yourself instinctively leaning in to better make out your minuscule character and their surroundings. It may not do much for your posture but you'll feel a physical connection to your brave adventurer, likewise peering anxiously into the gloom.**

An indulgently slow opening sees the camera descend towards a tiny speck that becomes a sailboat, tossed around by a roiling sea. Eventually, it lands on a beach from where you begin a long climb to the labyrinth you're here to explore. There's a whiff of self-importance about the whole routine, but this is *Below*'s way of letting you know that you need to be patient.

In its early hours, *Below* is heady, powerful stuff. Its aesthetic works wonders with scale, leaving you feeling vulnerable. Its gloomy environments are shrouded in a mist that only clears as you inch forward, sword and shield at the ready. As your every action echoes around the rocks, Jim Guthrie's score steels you for the perils to come.

It's economical in other ways, too. *Below* gives almost nothing away; gratifyingly, you learn only by doing. And though a few lessons are learned the hard way, it's generally a pretty good teacher. Take the crystals dropped by the creatures you encounter early on: these power your lantern, which illuminates the nearby area, but also activates mechanisms and reveals secrets. But the gems have a habit of bouncing off ledges if you swing your sword at anything that approaches. As such, you're better off using single, precise swipes, or jabbing from behind your shield. Not that you can afford to be too picky about tactics when enemies swarm you from all sides.

> **Calculated risk is part of what makes *Below* initially so absorbing**

If you are hit, you'll usually start bleeding: you can either apply a bandage you've found or crafted, or cauterise the wound at a brazier. Lighting it takes a few fraught seconds, however, and enemies will mercilessly target you when they know you're occupied. It's this tension that means surviving several rooms' worth of red lights unscathed leaves you feeling thrillingly alive, and spotting a campfire to rest at brings a warming feeling of relief. Here you can sleep and visit a dreamlike hub where you can leave items for your successor – albeit at the cost of leaving yourself short for the immediate journey ahead.

This calculated risk is part of what makes *Below* initially so absorbing, but its ruthlessness too often tilts over into outright unfairness. Instakill spike traps are occasionally placed behind scenery with barely a couple of pixels in plain view. Enemies can sometimes hit through walls, while in a game where split-second timing is crucial, the odd sluggish input can mean the difference between stemming a potentially fatal wound and losing 20 minutes of progress.

### DOWN AND OUT

Reaching your corpse lets you retrieve its inventory, but as gaps between campfires grow ever wider, and your ability to create checkpoints gets steadily more challenging, you're forced to go on suicide runs, purely to stock up on supplies to leave at the hub. These survival elements discourage the desire to properly explore, since you haven't really got the time. And the procedural elements that subtly change floor layouts are both too much and not enough: you can't memorise and thus master your domain, but the trek back to your body rarely yields any fresh and exciting discoveries.

During *Below*'s long journey to the light, the survival genre has flourished. Few of its peers can match it for atmosphere, but from crafting to combat to campfire checkpoints, *Below* feels a little behind the times. ■

### NEED TO KNOW

**WHAT IS IT?**
A challenging crawl through a procedurally generated labyrinth

**EXPECT TO PAY**
£18

**DEVELOPER**
Capybara Games

**PUBLISHER**
In-house

**REVIEWED ON**
Core i5-8350K, GTX 1060, 8GB RAM

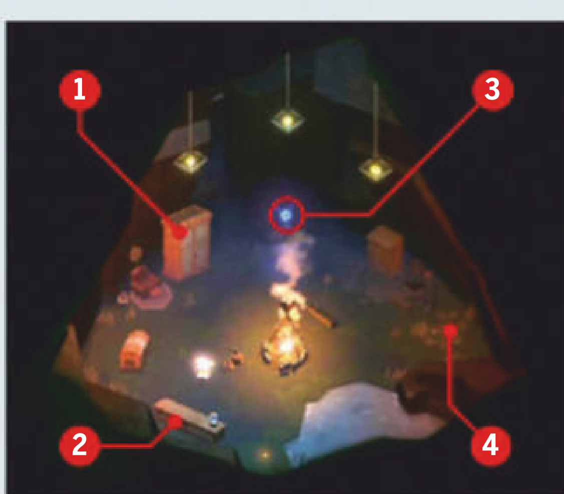
**MULTIPLAYER**
None

**LINK**
www.whatliesbelow.com

### POCKET CAMP *Enjoying the respite of Below's hub*

**1** Helmets and armour let you soak up a few hits. You can store them here for the next poor sap.

**2** Combine water and three foodstuffs – vegetables, meat or fungus – for a restorative brew or stew.



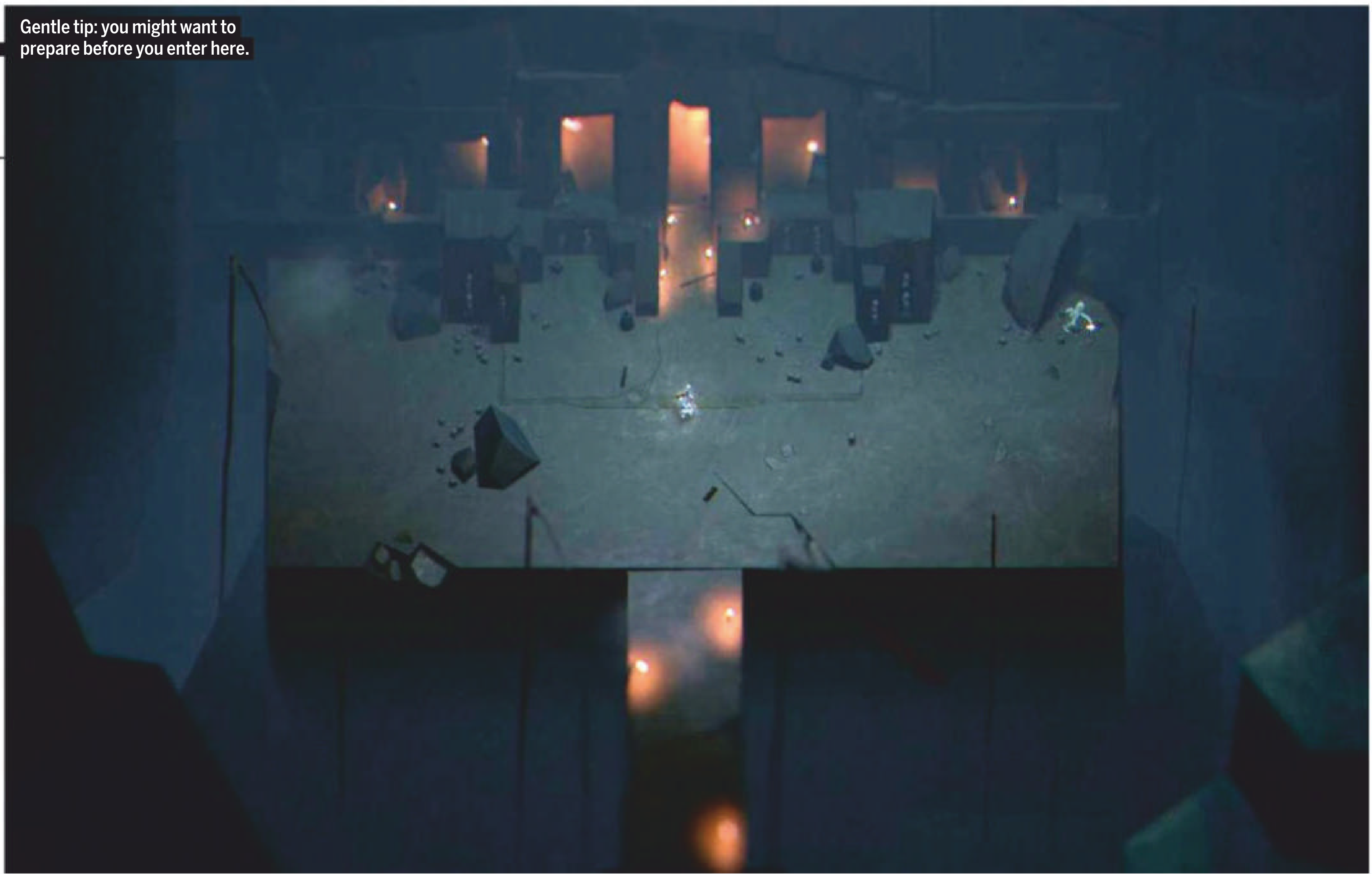

**3** Marbles you find on your travels slot in here to add decorations, like chairs and lights.

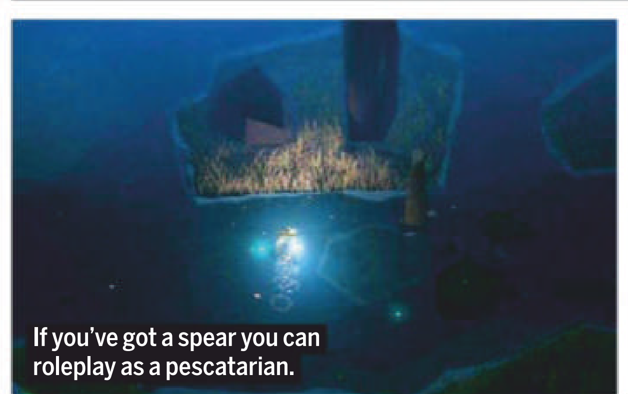
**4** It looks innocuous, but under the large stone here you can secrete your light crystals.

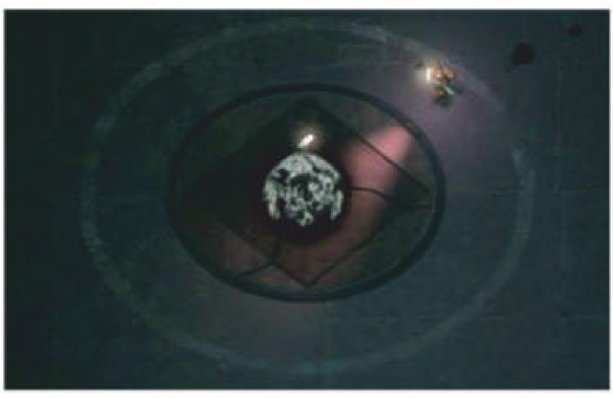
**PC GAMER VERDICT**

Capy's tough love and well-worn survival systems make it harder to appreciate *Below*'s singular look and feel.




Gentle tip: you might want to prepare before you enter here.

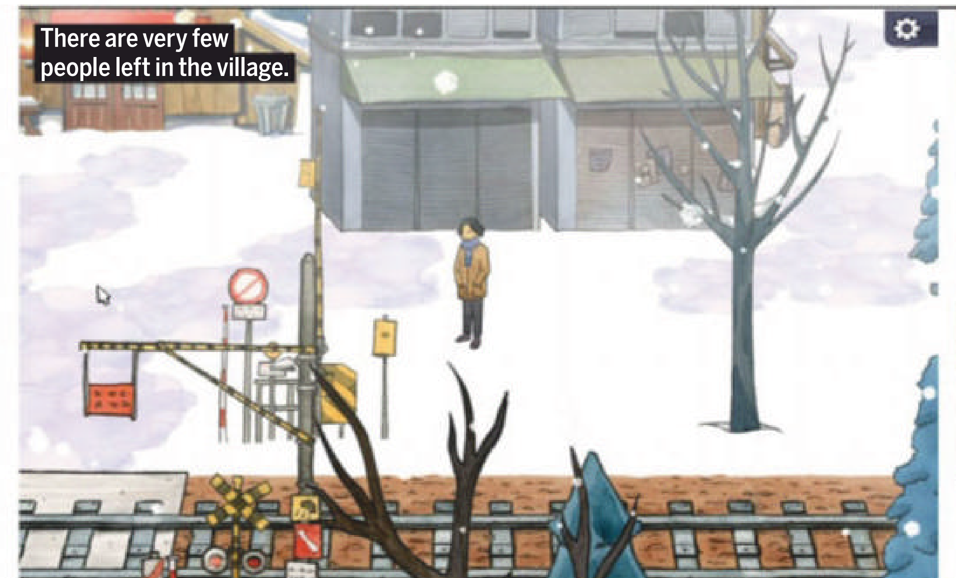

If you've got a spear you can roleplay as a pescatarian.




Bombs make pretty explosions.


That rare moment when you find a shortcut is blissful.

*The Doll Shop*


There are very few people left in the village.



The protagonist is a keen lepidopterist.







This doll has a smashing face.

# LIVING DOLL

Painting dolls and eating ramen in creepy adventure **THE DOLL SHOP**. *By Tom Sykes*

**As anyone who has ever been on Tinder will surely testify, romance and horror often go hand in hand. That might be why Atelier Sento's *The Doll Shop* works so well, as it takes the dating sim genre and carves out its beating heart. In this beautifully illustrated point-and-click, you play as a doll-maker in a remote Japanese village that has been tainted by tragedy, and that's currently being blanketed in endless snow.**

As with Atelier Sento's other freebies, right away it's the artwork that will draw your eye here. There's a tangible sense of depth to the village environment, which features a thick stack of parallax layers and a roving camera that swoops around the diorama-like scene. When your insular doll-maker enters a building, the perspective flattens as the game transitions to 'visual novel' mode, but it's still a gorgeous-looking game even when you're just standing indoors chatting to the town's residents.

There's quite a bit of dialogue and several story-branching choices, as you might expect from a visual novel, but this is much more engaging on an interactive level than many games where you simply click the mouse button for a couple of hours. Between dialogue blocks you're permitted to trudge around town at your leisure, taking in the melancholy atmosphere as you watch the snowflakes fall around you, and you listen to your footsteps crunching softly in the snow. This is a game about repetition, about the comforting familiarity of daily rituals, from your regular snowy meanderings to the delicate craft of your doll-making work.

> **There's a tangible sense of depth to the village environment**

There are few times during this roughly hour-long game when you'll need to repair a broken doll, or attend to your butterfly collection, and each activity is a matter of carefully repeating an action, several times until your work is finally done. If it sounds dull, it strangely isn't: you're given a satisfying amount of visual and aural feedback as you use glue to seal a cracked face, or your paintbrush to erase all trace that it was ever damaged. As you progress, you begin to understand why someone would spend their days on such delicate labour – even as you start to question the protagonist's backstory and state of mind.

## UNDER THE SKIN

While on the surface this is the story of a blossoming romance, the darker elements bubble to the surface. Like the best horror stories, Atelier Sento's game is expertly paced, taking the time to establish a baseline of normality, before it's overturned at the very end of the game. As you may have guessed, dolls play a part, but to preserve an element of mystery I'll leave it at that.

The studio's most polished game yet, *The Doll Shop* tells a fresh story in a well-realised setting that feels like it's been torn from the pages of a horror manga. You won't jump out of your seat, but you might squirm back in it as you see this creepy story through to its conclusion. ■

## NEED TO KNOW

**WHAT IS IT?**
A story-focused horror game set in a beautifully illustrated Japanese town.

**EXPECT TO PAY**
Free

**DEVELOPER**
Atelier Sento

**PUBLISHER**
In-house

**REVIEWED ON**
AMD A4-6300, 6GB RAM, GeForce GT 610

**MULTIPLAYER**
None

**LINK**
www.bit.ly/DollShop

**PC GAMER VERDICT**

A well-told and original horror story from Atelier Sento that makes the most of its evocative rural Japan setting.



# MONSTER MUNCH

## Restore order in MONSTRÜOUS. *By Tom Sykes*

**A hideous and deadly, yet decidedly pitiful monster stands before you, waiting to turn your adventuring party to mush after just eight turns. What do you do – and, more specifically, when do you do it – to slay the creature and prevent this terrible fate? *Monstrüous* is a wonderfully fluid point-and-click puzzler that posits the above question, while revelling in the (often dismal) outcomes of your decisions.**

Rather than controlling the four-person party directly, your sole interaction is deciding the order in which they perform their special moves. Will you have your amphibian bard dude summon a protective bubble right at the start, or a few turns in when the monster has a mean look on his face? Will you give the princess empowering coffee *before* you summon that fiery comet or after those monstrous eggs have been laid at her feet? Your attacks have counters, as do the monster's, and these need to be carefully choreographed in order to create the turn order that leads to success.

It's a game of trial and error, then – but it's rare that the error part is this much fun. This is a beautiful game, with a whimsical art style that reminds me of Adventure Time, and several hundred frames (surely) of slick animation. Every failed and successful attack, and every unforeseen death, triggers a charming bit of animation – really, seeing them all will be your main impetus for replaying the game.

*Monstrüous* takes me back to the glory days of flash games: to silly little experiences with terrifically fluid animation. It's sweet, short and slight, and the perfect thing to occupy a rainy lunch hour. ■

**75**


Alas, there's no 'run away screaming' action.

**NEED TO KNOW**

| EXPECT TO PAY | DEVELOPER | LINK |
| --- | --- | --- |
| Nothing | nonomiyo | www.bit.ly/monitch |

# X-RAY SPECS

## Do some surgery in 11:45 A VIVID LIFE. *By Tom Sykes*

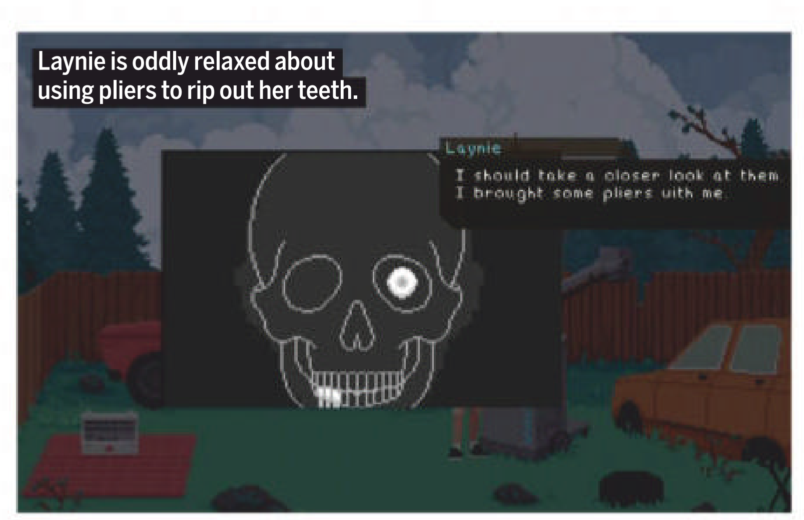
**A teenage girl steals an x-ray machine in order to perform gruesome experiments on her body. It's a hell of a premise, but that's par for the course for Deconstructeam, whose varied back catalogue includes a cyberpunk pottery game. The studio describes *11:45 A Vivid Life* as a 'narrative experiment' paving the way for a bigger project, and I'd wager the experiment has to do with the game's unusually subjective method of storytelling.**

Protagonist Laynie essentially decides her own story in this point-and-click. She feels that her skeleton isn't her own, and the obvious solution is to x-ray parts of her body, and then to cut out any foreign matter she finds. You're in charge of the scanning, via a cumbersome minigame that you have to repeat far too often, but Laynie (thankfully) handles the surgery, by yanking out her teeth, false eye and other curious matter.

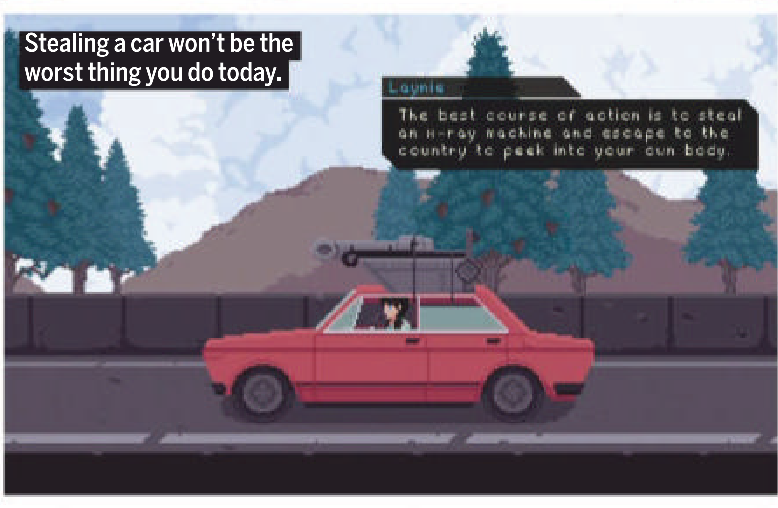
The animation is too bloodless for anyone to be that grossed-out by the mutilation, but it's alarming how readily Laynie will harm herself. Presented with each bodily artefact, you then decide on their origin, be it supernatural or the result of abuse. Your answers subtly divert the story towards one extreme or the other, before a mysterious figure implores Laynie to come back home.

I feel it's a narrative that only means something if the truth is grounded in real-world trauma, rather than in alien experimentation, but as none of the backstories is ever explicitly confirmed it's possible that any, or all, or none of the story options are really true. I'm intrigued to see where the experiment will go from here, as this is a sturdy skeleton to build upon. ■

**71**



Laynie is oddly relaxed about using pliers to rip out her teeth.



Stealing a car won't be the worst thing you do today.

**NEED TO KNOW**

| EXPECT TO PAY | DEVELOPER | LINK |
| --- | --- | --- |
| Nothing | Deconstructeam | www.bit.ly/avividlife |

*OLD GAMES REVISITED* by Chris Thursten




In space, nobody can see because of the bloom.

# TYPO NEGATIVE

## ALIENS: COLONIAL MARINES is still a bloody mess

**I was going to open with something like, '*Aliens: Colonial Marines* achieves nothing except the utter creative destitution of Giger's monster'. Or, perhaps, '*Aliens: Colonial Marines*' overwrought tales of men returning to a lamentable hell-pit for no reason remains unfortunately relatable years after the fact'. The issue with these introductions is that they suggest that I've been able to walk away from *Colonial Marines* with some kind of perspective.**

That has not been the case. Not the perspective part – the walking away bit. I cannot quit *Aliens: Colonial Marines* because every time I close it, it opens itself again.

I just tried closing the process through Task Manager. It didn't work. Please send help. My desktop is being haunted by Gearbox Software's second or third greatest mistake.

In whatever time I have left before this awful game takes over my computer completely, let me attempt to explain why I thought it necessary to go back. After all, there are lots of good reasons not to. This is a thin, boring, repetitive shooter, desperately in love with the movies yet utterly devoid of any real understanding of them. It does an absolute hatchet job on the poor alien, turning a sleek stalking killer into a group of chittering weirdos to be mown down by the bucketload.

Here's the thing, though: *Colonial Marines'* aliens were never supposed to be quite so dumb. It turns out that the game's AI woes are owed to a single typo in one of its ini files. Dig out a file called 'PecanEngine.ini' in your My Games folder and search for 'teather'. It should be 'tether'. There: AI fixed! Aliens now chase you, and spend less time popping in and out of doorways like they've forgotten what they came in the room for.

> **This was a dated-feeling shooter by the standards of five years ago**

Bad news, though: this doesn't actually make the game any better. If anything, it robs it of some of its value as pantomime – and *Colonial Marines* has to find its victories where it can.

This was a dated-feeling shooter by the standards of five years ago, over-reliant as it is on '00s action game staples. You wander from setpiece to setpiece, hosing down hordes of aliens (and an entire army of corporate soldiers) as your various jarhead buddies slowly hack terminals or open doors. Your nostalgia for that particular motion tracker beep would have to be extreme to warrant playing this today – and even if it is, please just go play *Alien: Isolation* instead.

### NEED TO KNOW

**WHAT IS IT?**
Gearbox's much-hyped, then much-lamented Aliens shooter.

**EXPECT TO PAY**
£25?!

**DEVELOPER**
Gearbox

**PUBLISHER**
SEGA

**REVIEWED ON**
Core i7-6700K, 16GB RAM, GTX 980

**MULTIPLAYER**
Yes, but also, let's be real, no

**LINK**
www.bit.ly/2ryl0SQ

### NO PULSE

I appreciate that this all sounds rather harsh – I suppose I've discovered that after all this time, *Colonial Marines* still has the capacity to wind me up. It winds me up that it was released in this state. It winds me up that it's *still* in this state. It winds me up that otherwise great voice actors, like Ashly Burch, were lumbered with a script whose problems stretch far beyond a few typos. It winds me up that it literally will not go away, and that I now need to reboot my computer. ■

**PC GAMER VERDICT**

I've deducted a point for every year since release and an additional point for every time the game booted itself.



# X AND DEATH

## Clicking on the men in WARFACE

**The anger that followed *CS:GO*'s shift to free-to-play made me want to revisit *Warface*, a game whose mission has only ever been to provide a multiplayer military shooter that you can play if you really want to play *Call of Duty* but don't want to spend any money. This describes a healthy audience, as it happens, and the game has continued to plod on over the years, being average.**

*Warface* is something you can do if you would like to shoot at the bad men from the bad private military company with friends; it is something you can do if you would like to shoot at your friends, or, failing that, a rotating cast of strangers who quit mid-match because nothing much matters. *Warface* has two remarkable qualities: its name, which is profoundly silly, and its reticle bloom, which is profoundly huge. It's so large that it feels like a statement: you don't want to go to war, you just want to see a big X when you click on someone's head. And reader? They're not wrong. It's a very, very big X. It makes me happy when I see it.

*Warface* has always been more of a platform than a game, and in the years since its release it has gained most of the things you'd expect: a battle royale mode, a battle pass. By 'things you'd expect' I suppose what I mean is 'things *Fortnite* has'. As cynical as it all is, at least it doesn't try to hide it. Want about 75% of a decent *Call of Duty*, right now? Want to pay for it with time rather than money? Here you go. Now, PCG has a long history of giving *Call of Duty* games scores in the upper-mid 60s, so let's treat this coldly calculated bit of game design to a coldly calculated score. 75% of 68 is... 51, right? Let's go with 51.

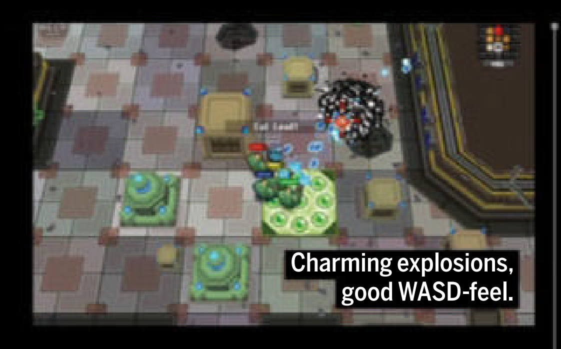
**51**


I love you, big X that tells me I'm good at things.


The '00s are back and they're here to party!

### NEED TO KNOW

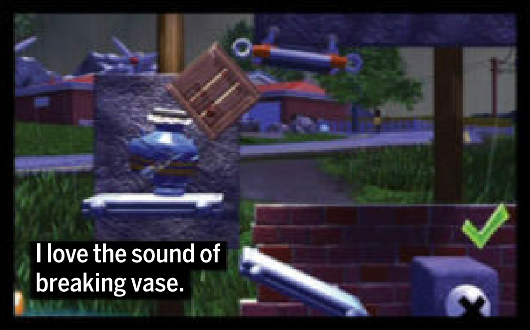
| EXPECT TO PAY | DEVELOPER | PUBLISHER |
|---|---|---|
| Probably don't | Crytek | My.com |


Charming explosions, good WASD-feel.

## PINEAPPLE SMASH CREW

Having now reminded everyone that mediocre shooters will find you even when you don't want them to, I'd like to give over the rest of this page to games that are nice. *Pineapple Smash Crew* is nice: a chunky cartoon *Cannon Fodder* where you fling space marines into alien-infested derelicts and try not to get them killed. The heart of the game is found in your secondary weapons, like remote-controlled rockets and grenades, with each of your squad of four able to carry one at a time. There's finesse in managing the use of each, but also reliable arcade charm in simply flinging whatever's to hand at the nearest monster. Lovely music, too. Very much better than Colonial Marines.

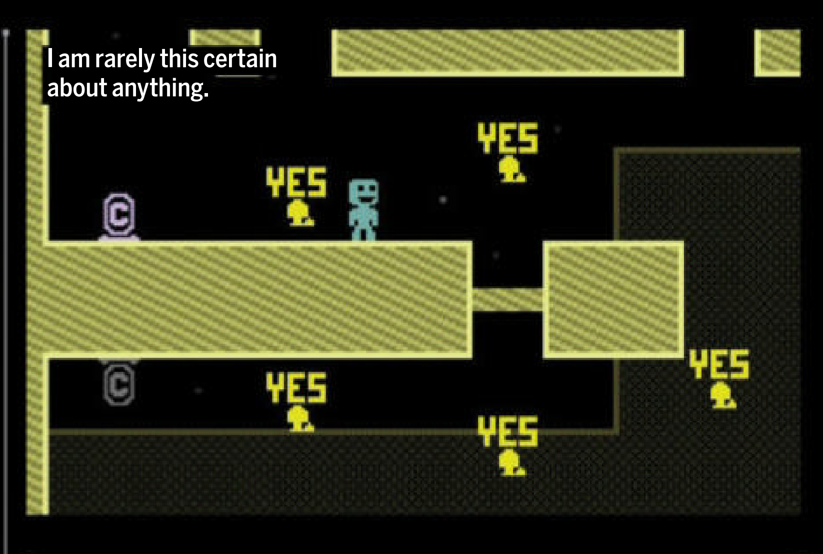
**75**


I love the sound of breaking vase.

## CRAZY MACHINE ELEMENTS

I think I may have been a little hard on *Crazy Machine Elements* when I reviewed it back in cough-let's-not-discuss-it. It's a puzzler where you fit pieces into Rube Goldberg machines and manipulate physics to complete objectives. It is also, I suspect, a game for children. My critique was that it didn't allow you enough freedom to build your own solutions – a staple of games like *World of Goo* or *Crayon Physics*. But I've softened towards it since, and now I see the fun in figuring out what's missing from a prebuilt machine. It's like a jigsaw puzzle full of things that bounce and break: I'd have loved it when I was a kid.

**65**



I am rarely this certain about anything.

## VVVVVV

I'd forgotten that *VVVVVV* has a plot. Terry Cavanagh is a minimalist developer: this is an ultra-tough platform game where you flip gravity, and *VVVVVV* bends that one mechanic to breaking point over its short running time. It's a game that you appreciate intellectually while also sometimes resenting that it is impossible to break a 70MB downloadable game over your knee. And thus the point of the story, the charm, the music: they give this ace meditation on mechanics some humanity.

**85**

# HARDWARE

## GET THE PC YOUR GAMES DESERVE



Got a spare £1,200? This curved ultrawide screen could be for you.

GROUP TEST

# GAMING MONITORS

## Likely to outlast your PC by several upgrade generations, a good gaming display will go a long way

*By Jarred Walton*

The new year is here, but my pick for the best gaming monitor hasn't changed. The best gaming monitor is the Asus ROG Swift PG279Q. It combines 1440p with 144Hz refresh rate, overclockable to 165Hz, and has G-Sync to keep your gameplay smooth.

Asus and Acer have recently (finally!) launched new 27-inch 4K HDR 144Hz G-Sync monitors – essentially 4K HDR versions of my top pick here. Those monitors are fantastic, but they also cost around £2,000. So unless you have just won the lottery, I stand by my Asus PG279Q recommendation.

The great thing about displays is that, unlike graphics cards where their lifespan is usually only a few years, a good display can keep you going for the better part of a decade. With such a long lifespan, it pays to get something you'll be happy with for years to come. I'll highlight the technologies and features that make for a good gaming display and why they matter. Plus, I have several options for a variety of price points. Right now, these are the best monitors you can buy for PC gaming.




1




# XR382CQK

## ACER £1,200

1 If your mantra for displays is to go big or go home, Acer hears you. Its XR382CQK is a massive 38-inch curved screen that looks stunning. It features a QHD ultrawide (UW) panel with a 3840x1600 resolution, and an aspect ratio of 24:10 that's slightly wider than the 'standard' 21:9 AR seen on other UW displays.

Not content to end there, the display also features FreeSync with up to 75Hz variable refresh rates. If you're looking for something to turn heads, this is the best ultrawide gaming display.

For games that properly support ultrawide resolutions, the surround effect of the XR382CQK is incredibly immersive – sitting at your desk, the 38-inch panel completely fills your field of view.

The cost for the best ultrawide display is steep, but at least you won't need to upgrade again for many years. £1,200 for the XR382CQK may be a bitter pill to swallow, but the beauty of this screen will wash away the nasty taste in your mouth the instant you boot up your favourite games in 24:10 glory. And barring total hardware failure, this display should keep you gaming happily for years to come.

**PC GAMER VERDICT**

- + Immersive extra-wide curved screen
- + 75Hz FreeSync enabled
- – 3840x1600 display needs beefy GPU
- – Expensive

**SPECS** **SCREEN SIZE:** 37.5-INCH / **PANEL TYPE:** IPS / **ASPECT RATIO:** 24:10 / **RESOLUTION:** 3840X1600 / **RESPONSE TIME:** 5MS / **REFRESH RATE:** 75HZ / **WEIGHT:** 10.7KG

# Predator X27

## ACER £2,170

2 Until recently, gamers had to choose between high resolution and high refresh rates. That's until the Acer Predator X27 and Asus PG27UQ launched. Both monitors are fantastic, with 4K resolution, HDR, G-Sync, and a high refresh rate. They're also pricey at around £2,200 apiece.

Marrying an IPS panel to a refresh rate of up to 144Hz when overclocked, the X27 is a sight for sore (or sensitive) eyes. Its integration of VisionCare technology, Acer says, will help prevent eye strain and tiredness during long sessions. G-Sync allows the monitor to refresh at a variable rate instead of being locked to its max (in this case, 144Hz). It syncs the monitor's refresh rate to your framerate in-game, eliminating microstutter or screen tearing when your framerate doesn't match up perfectly to that 144Hz demand.

Despite the high asking price, both the X27 and the PG27UQ are worth considering, but I'm giving the nod here to the Acer X27. The two monitors are nearly identical, but I like the stand on the X27 more. That said, if either monitor is on sale, go for the one with the lower price tag.

**PC GAMER VERDICT**

- + Capable of crisp 4K HDR graphics
- + Overclockable high refresh rate
- – Ludicrously expensive
- – Not the fastest response time

**SPECS** **SCREEN SIZE:** 27-INCH / **PANEL TYPE:** IPS / **ASPECT RATIO:** 16:9 / **RESOLUTION:** 3840X2160 / **RESPONSE TIME:** 4MS / **REFRESH RATE:** 120HZ (OVERCLOCKS TO 144HZ) / **WEIGHT:** 12.3KG




# ROG Swift PG279Q

## ASUS £670

3 The PG279Q is a 27-inch monitor with a 2560x1440 resolution, which I consider the sweet spot for high-end gaming. It offers more pixels than 1080p without being as demanding as a 4K panel, meaning games look sharp at 27 inches but won't bring a GPU to its knees. Plus, you can still get higher-than-60Hz refresh rates, which isn't possible on most 4K displays.

Like its competitor, the Acer Predator XB271HU, the PG279Q is an IPS panel with a refresh rate that can be overclocked up to 165Hz. Inputs include DisplayPort 1.2a as well as HDMI 1.4. Both displays also feature Nvidia's G-Sync technology for variable refresh rates, assuming you're using an Nvidia GPU. If you're an AMD user, you should consider a FreeSync monitor instead.

The biggest drawback is its £670 price tag. Having said that, I consider a monitor to be an investment – don't buy a cheap one you'll want to replace in two years; buy a great one that will last you five. You can buy similar IPS displays with FreeSync instead of G-Sync, but the Asus ROG Swift PG279Q is the best choice and worth every penny.

**PC GAMER VERDICT**

- 1440p with 144Hz refresh rate
- Low input lag for an IPS screen
- G-Sync requires Nvidia graphics
- Expensive

**SPECS SCREEN SIZE:** 27-INCH / **PANEL TYPE:** IPS / **ASPECT RATIO:** 16:9 / **RESOLUTION:** 2560X1440 / **RESPONSE TIME:** 4MS / **REFRESH RATE:** 144HZ (OVERCLOCKS TO 165HZ) / **WEIGHT:** 6.99KG

# VG248QE

## ASUS £200

4 For displays, one of the biggest compromises is often giving up features to save money. You don't have to lose out on everything in pursuit of lower prices, however, as the VG248QE still supports up to 144Hz refresh rates, all on a 24-inch 1080p TN display.

Finding a great budget gaming display is difficult. Features like an IPS panel and Nvidia's G-Sync carry a price premium. The Asus VG248QE keeps prices low by opting to not include Nvidia's pricey G-Sync, and its TN panel gives washed-out colours compared to the IPS panels I've selected elsewhere. But the inclusion of 144Hz refresh rates makes this a better choice for gaming than most 60Hz 1080p displays, and pairs perfectly with budget builds that use an AMD graphics card.

If you want to save even more money, the 23-inch Viewsonic VX2370Smh includes an IPS panel and is only £150 online, though it's not without drawbacks and is harder to find in the UK. It's still an IPS bargain, which means there are none of the washed out colours you get with a TN panel. Going that route, though, means you lose out on a fast refresh rate.

**PC GAMER VERDICT**

- Good specs for an affordable price
- Supports 144Hz
- Ideal for budget builds
- Uses a TN panel

**SPECS SCREEN SIZE:** 24-INCH / **PANEL TYPE:** TN / **ASPECT RATIO:** 16:9 / **RESOLUTION:** 1920X1080 / **RESPONSE TIME:** 1MS / **REFRESH RATE:** 144HZ / **WEIGHT:** 5.5KG



4

## HOW WE TEST

There are two main ways to test out a screen. The first is by playing games on it. Subjectively testing gaming performance isn't going to give you the lowdown on the specifics of a screen, but it will let you test the aspect ratio, native resolution and any games-centric technologies they have. Side-by-side testing is also good for keying into the differences between each panel.

Objective testing can be great, but is also more difficult. To do it properly, you need hardware for testing latency, colour accuracy, and other metrics. Most gamers don't have access to any of this. The days of retail space for such things are dwindling, but if you can get a look at a screen before buying it, plug in your laptop and check out the monitor testing pages at *www.lagom.nl*.


5


6

# MG279Q

## ASUS £520

5 Right now there's really no competition for the Asus MG279Q: this is the best monitor for AMD users who want a FreeSync display. It's a 1440p IPS screen that can refresh up to 144Hz, but since it uses FreeSync instead of G-Sync, it doesn't cost as much (although the price gap has narrowed).

Thanks to that IPS screen, colours look great even from off-angles. The base is sturdy and the bezel is fairly thin, which is nice for a 27-inch monitor. It also has a light anti-gloss coating, which I like; some older IPS displays went too heavy on the coating and affected image quality, but the MG279Q doesn't have that problem.

The contrast ratio is also great, and the ability to support multiple inputs makes this screen better for people who might want to connect a second system, like a console. This is thanks to the presence of the internal scaler, one of the main differences you'll find between G-Sync and FreeSync offerings. With no other IPS FreeSync displays that can match the MG279Q on specs, this is a great monitor and an easy choice for anyone with an AMD graphics card.

**PC GAMER VERDICT**

- + IPS, 144Hz, 2560x1440
- + Good picture quality out of the box
- − Adaptive refresh range is 35Hz-90Hz
- − No blur reduction mode

**SPECS** **SCREEN SIZE:** 27-INCH / **PANEL TYPE:** IPS / **ASPECT RATIO:** 16:9 / **RESOLUTION:** 2560X1440 / **RESPONSE TIME:** 4MS / **REFRESH RATE:** 144HZ / **WEIGHT:** 7.3KG

# Predator XB321HK

## ACER £800

6 Gaming at 4K is a premium endeavour. You need a colossal amount of rendering power to game at decent framerates and such high resolution. And if you're rocking a top-shelf graphics card, like the new RTX 2080, it's only fitting to use an exquisite display, but is a G-Sync 4K one worth it?

The Acer Predator XB321HK answers that question with a resounding yes. At 32 inches, it gives you enough screen to put its 3840x2160 4K UHD resolution to good use. It's also an IPS display, so colours are vibrant, regardless of your viewing angle.

Overall, the XB321HK is an beast of a monitor. The price is a big hurdle to overcome, but this is a luxury monitor with luxury features. It's built for those of us that want the best, and if you've shelled out on a pair of RTX 2080 or 2080 Ti cards, it's a fitting match. For us mere mortals, until our graphics hardware gets to the point where you can run a 4K display from a modestly priced single GPU, we'd suggest sticking with a lower resolution screen. That way you get great framerates and can take advantage of the 144Hz and G-Sync/FreeSync technology.

**PC GAMER VERDICT**

- + Vibrant colours, wide viewing angles
- + Large enough for 4K resolution
- − G-Sync requires Nvidia graphics
- − 4K gaming needs a lot of GPU power

**SPECS** **SCREEN SIZE:** 32-INCH / **PANEL TYPE:** IPS / **ASPECT RATIO:** 16:9 / **RESOLUTION:** 3840X2160 / **RESPONSE TIME:** 4MS / **REFRESH RATE:** 60HZ / **WEIGHT:** 11.3KG

GUIDE

# JARGON BUSTER

## PC hardware terms explained and demystified

*By James Norris*

Whether you are lost in a labyrinthine tech support forum and nothing's making sense, or you just want to refresh your PC building and maintenance knowledge, I'm here to help with a glossary of the most common hardware terms and their straightforward explanations.

If you're looking for more back-to-basics help with both hardware and games, check out The Complete Guide to PC Gaming at ***www.bit.ly/completepc.***



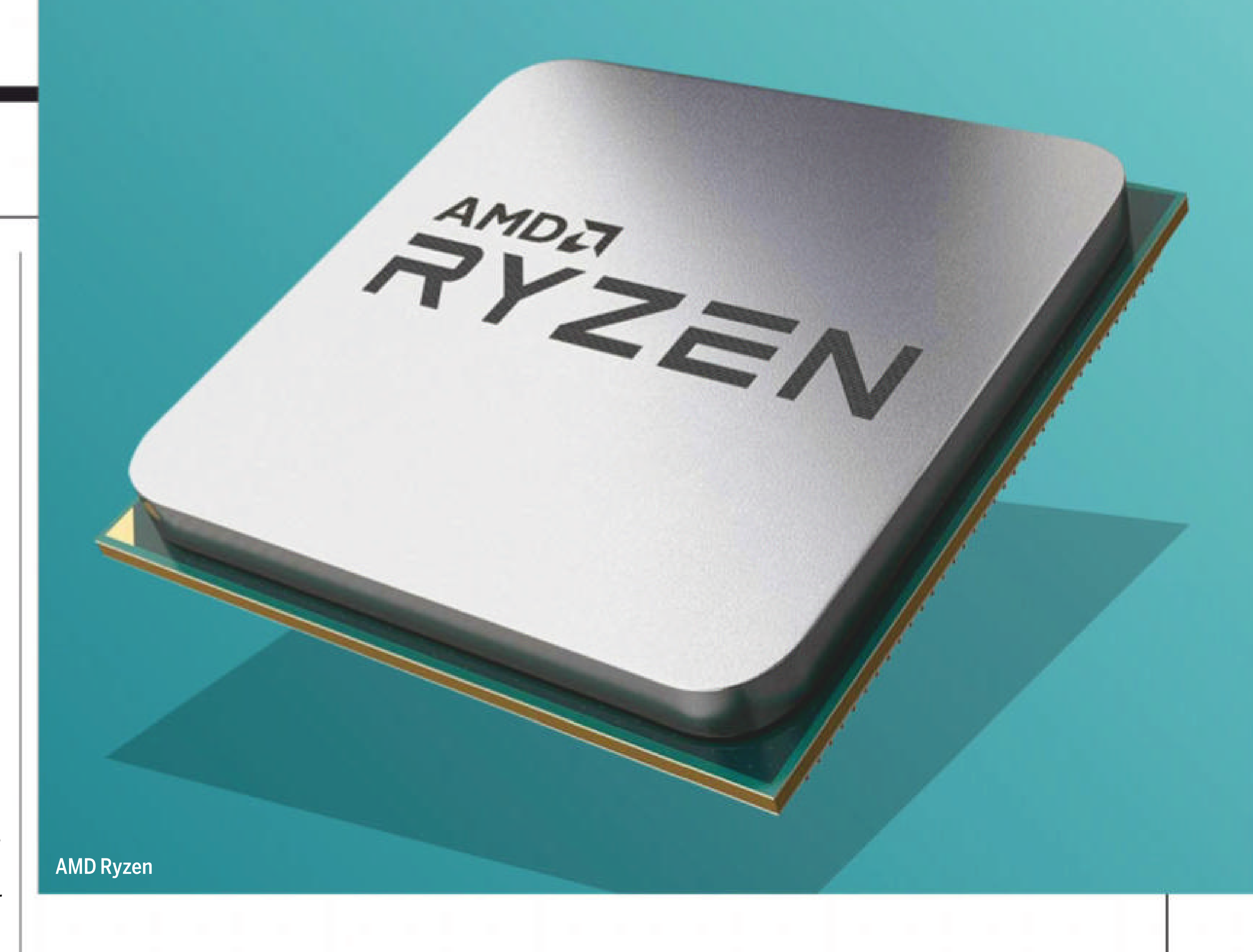










AMD Ryzen

# 0-9

**32-bit** – When referencing computer architecture, the term 32-bit is used to denote the number of bits that can be processed simultaneously. Systems using 32-bit CPU and OS architectures generally have lower performance potential and RAM capacity when compared to their newer, 64-bit brethren. This term is also used to describe the colour range of a monitor that provides 32-bit per pixel of colour information, which means eight bits per channel for red, green and blue, along with an 8-bit transparency channel.
**64-bit** – Again referencing computer architecture, 64-bit is used to indicate the number of bits that can be processed at the same time, in this case twice as much as 32-bit, which provides processing and memory advantages for systems designed around this greater potential. Most modern computer systems use 64-bit architecture.
**802.11** – Wi-Fi data standard specification family that runs on the 2.5GHz or 5GHz wireless bands.

# A

**AMD Radeon** – AMD's brand name for its series of graphics cards, DRAM modules, SSDs and supporting software. Usually refers to graphics cards or GPUs.
**AMD Ryzen** – AMD's competitor to Intel's Core series processors, now in their second generation. Ryzen processors, based on the Zen architecture, offer slightly lower single-core speeds than their Intel counterparts but offer more cores at similar or lower prices.
**APU** – Accelerated Processing Unit. AMD's definition for a CPU/GPU fusion designed for budget and midrange gaming-oriented systems
**Aspect ratio** – The size of a computer screen's width relative to its height. Back during the CRT era, this was normally 4:3, but with the advent of flat-screen displays, 16:9 has become the accepted standard. Other common aspect ratios include 21:9 for ultrawide monitors, and 16:10 for productivity-based work. Note that aspect ratio does not specify resolution or the actual size, just the proportions of the display.
**Acer** – Acer Inc. is a computer hardware company, based in Taiwan, that's known for its Predator series of products and competitive pricing.
**ASUS** – ASUSTek Computer Inc., based in Taiwan, is a computer company specialising in high-performance, gamer-oriented hardware. ASUS owns the popular Republic of Gamers brand.
**ATX** – Advanced Technology eXtended. Midrange desktop PC size standard for motherboards and cases.

# B

**Bandwidth** – Refers to the maximum rate of data transfer from one place to another, measured in bits per second. This applies to your internet connection, as well as your PC's hardware.
**BenQ** – A Taiwanese hardware manufacturer known for high-performance gaming monitors and a competitive pricing structure.
**BIOS** – Basic Input/Output System, also Firmware, also UEFI. The BIOS is the low-level operating system of a component such as a motherboard or graphics card, often made user-accessible via a set of option screens that are available for configuration when your computer boots up.
**Blu-ray** – The high-density optical disc format that replaced DVD.
**Bluetooth** – A low-bandwidth wireless standard used for peripherals like mice, keyboards and speakers. Produces unacceptable lag for gaming on most systems, with RF-style wireless or corded devices preferred for high-performance situations.
**Bus** – In this context, a hardware bus is the architecture in a computer's subsystems that enables the various components to communicate with each other. This includes core areas such the system memory and extends to peripherals such as storage devices or expansion card slots, each of which have their own unique specifications.



Blu-Ray





# C

**Cable modem** – The device used to provide an internet signal to your router from your ISP. Usually supplied by cable companies and ISPs to end users and often built into a small network router.
**Cache** – A small amount of very high-speed memory that's used to keep frequently accessed data handy for the CPU. A properly managed and sized cache has an outsized effect on system performance.

CPUs

**Case** – An enclosure that houses all the parts of a PC.
**CD-R** – Recordable Compact Disc.
**Chipset** – The series of integrated circuits that manages the functions of a motherboard.
**Clock speed** – The rate at which a computer performs calculation, usually measured in megahertz (MHz) or gigahertz (GHz).
**Codec** – Short for coder-decoder. A codec is software or hardware that encodes and decodes data streams.
**Core** – The computational centre of a processor, usually one of a group of up to six in a modern desktop CPU.
**Corsair** – Premium computer peripheral supplier based in Fremont, California and known for quality DRAM products, keyboards, water-cooling systems and high-fashion tower cases.
**CPU** – Central Processing Unit. The computation centre of a computer, comprised of one or more cores.
**Crossover Ethernet Cable** – A length of RJ-45 networking cable with a special wiring configuration that enables routers to be daisy chained together via a specially labelled or autosensing Ethernet port.

# D

**Das Keyboard** – A boutique Austin, Texas-based hardware company that produces a range of well-received high-quality mechanical keyboards.
**DHCP** – Dynamic Host Configuration Protocol. An automatic IP addressing system used on modern TCP/IP networks and the internet that provides each computer with an IP address without requiring a manually entered or fixed-number identification scheme. Widely used by internet access hardware such as network routers.
**DDR** – Double Data Rate memory. Available in many speeds and sizes.
**DisplayPort** – DisplayPort is a high-performance digital video connector designed for speedy refresh rates and high resolutions.
**DMA** – Direct Memory Access. Refers to devices that can directly utilise system memory without draining processor resources.



Case

**DPI** – Dots Per Inch. Used to determine printing and screen resolution.
**Drive bay** – A place inside a computer case provided to install a hard drive. Comes in 5.25-inch and 3.5-inch sizes.
**DRAM** – Dynamic RAM. DRAM refreshes constantly to hold data. It's slower than static RAM, but cheaper.
**Driver** – The specialised software that controls the low-level functions of hardware components, usually provided by the component manufacturer or occasionally by the OS vendor.

# E

**E-ATX** – Extended ATX. Extra-large ATX size used for deluxe motherboards and computer cases.

# F

**FAT** – File Allocation Table. A family of robust but simple filing systems used by many OS implementations, such as MS-DOS, as well as standalone hardware such as printers or IP cameras. FAT files often have limitations on naming conventions and size.
**Firewall** – A software or hardware network barrier that protects users from outside attacks and surveillance.
**Firmware** – Low-level software built into a device's non-volatile memory (memory which retains data even if the power is switched off). It communicates with OS drivers and other hardware.
**FLOPS** – Floating Point Operations Per Second. A measure of computational performance that leans on complex floating-point operations. GPUs are



ITX

particularly robust at performing these, outperforming even high-end CPUs by several orders of magnitude.
**FreeSync** – An AMD-created, but otherwise free and open, monitor variable sync standard, compatible with VESA's Adaptive Sync protocol. Essentially, rather than the monitor refreshing at a steady rate, its refresh rate changes with the framerate of the game you're playing. FreeSync 2 updates the standard to include lower minimum framerates, HDR, HDMI support and integrated colour space management.

## G

**Gigahertz** – 1000MHz. A unit of internal clock speed used by CPUs and other components to specify device performance. Adjusting the clock speed higher provides better performance, although doing so can impact stability and power consumption.
**G.Skill** – A computer hardware manufacturer, based in Taiwan, that's best known for its top-shelf, high-speed DRAM products.
**G-Sync** – Similar to FreeSync, except proprietary. This is a monitor adaptive sync standard used by Nvidia to smooth framerate transitions and eliminate display tearing. Requires Nvidia graphics hardware and a G-Sync-capable monitor.

## H

**Hard Boot** – Resetting a computer from a powered-off condition.




**Hard disk drive (also mechanical hard drive)** – These legacy storage devices utilise rotating magnetic disks to store data and generally feature lower costs and larger capacities than solid-state drives (SSDs). While mechanical hard disk systems are a mature and stable technology, SSDs have recently begun to supplant them. The faster the rotational speed of the disk, the better the performance and the higher the cost of the drive. 5400RPM disks are considered mainstream, while 7200RPM and 10000RPM speeds are reserved for high-performance drives.
**HBM** – High Bandwidth Memory. A type of stackable memory used in graphics cards that provides high performance in a small form factor.
**Hyperthreading** – A CPU technology that enables two threads to share a CPU core, doubling the thread capabilities of a processor. Especially useful for low-core-count laptops.

## I

**Intel Core i9** – Intel's newest consumer CPU. The Core i9 series takes over from the previous top-of-the-line i7 processors and introduces features formerly only found on enterprise-grade hardware, running from six to 18 cores and supporting hyperthreading. The i9-9900K, with eight cores running at a peak of 5GHz, is a gaming beast.

**IP address** – Internet Protocol address. The unique numeric address of a networked device, displayed as a series of numbers, for example 192.168.0.2 in the commonly used version four of the IP protocol. As demand for IP addresses has grown, version six of the IP protocol is being rolled out, which provides a much larger addressing space to cover the rapid growth of internet-connected devices.
**IPS panel** – In-Plane Switching. A type of advanced LCD display that offers superior colours and viewing angles.
**ITX** – Information Technology eXtended. Tiny desktop PC size standard used for tight spaces or boutique builds.

## J

**JEDEC** – A colloquial term referring to the DRAM preconfigured memory setting profiles derived from the Joint Electron Device Engineering Council's specifications. Similar to XMP.

## K

**Kilohertz** – 1000Hz; A unit of computing speed. Generally used to describe monitor refresh rates.
**KVM switch** – Short for Keyboard, Video, Mouse. A type of switchbox that enables multiple computers to be attached to a single keyboard, monitor, and mouse or other input device.


Hard disk drive

*Jargon Buster*

# L

**LAN/WLAN** – Local Area Network / Wireless Local Area Network. A private local network of computers usually connected via Wi-Fi or Ethernet.

**Logitech** – A highly successful Swiss computer peripherals company specialising in mice, headsets, keyboards and computer speakers.

# M

**MAC address** – A code built into every network-capable port that uniquely identifies each device connection. Usually takes the form of six pairs of hexadecimal digits separated by a comma or dash.

**Mechanical keyboard** – A type of keyboard that uses microswitches instead of the default rubber domes for actuation. They tend to provide a form of tactile and audio feedback that certain users find satisfying.

**Megahertz** – 1000KHz. A unit of computing speed. Generally used to specify speeds on memory as well as on older processors.

**MLC** – Multi Level Cell. Normally refers to a NAND memory implementation. Cheaper but less durable than SLC.

**MSI** – Micro-Star International, a Taiwanese corporation that makes just about any kind of computing hardware you can imagine.

**Motherboard** – The centrepiece of a PC system and the place where all the other components are installed.

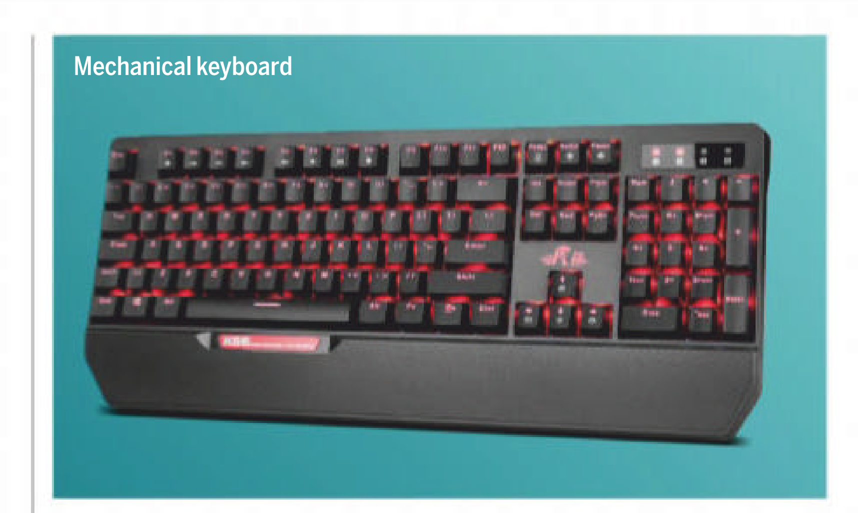
# N

**NAND flash memory** – The type of memory used in SSDs.

**NZXT** – An American hardware company known for cases and components, such as liquid coolers.

**Nvidia GTX** – In Nvidia's current nomenclature, GTX refers to consumer graphics cards based on its last-generation Pascal and previous Maxwell architectures. The Pascal-based Nvidia GTX 1080 and big brother 1080 Ti were the first Nvidia cards able to provide 4K gaming at reasonable framerates, while the 1070 is designed to cover gaming needs at 1080 and 1440 resolutions and high detail.

**Nvidia RTX** – Featuring the new Turing architecture, Nvidia's RTX series of graphics cards, including the RTX 2080 and higher-performance RTX 2080 Ti, are the current top shelf when it comes to performance in consumer graphics cards, both in real-world and potential numbers. With Turing, 50% higher efficiency per core, faster memory and dedicated ray tracing and AI hardware, as well as jumps of over 20 frames per second are possible in many games.



Mechanical keyboard




SSD




Motherboard

# O

**OLED** – Organic Light Emitting Diode. An advanced screen technology that offers low power, high performance and amazing image quality. Increasingly found on smartphones, such as the iPhone XS and Samsung Galaxy S9, as well as on large screen TVs.

**Overclocking** – Pushing a component beyond its rated specifications to improve its performance.

# P

**PCB** – Printed Circuit Board. The backboard on which components such as sockets and Voltage Regulator Modules (VRMs) are mounted.

**PCIe (OR PCI-E)** – Peripheral Component Interconnect Express. A high-speed slot design used in modern computers for add-in cards.

**Pixel** – A single element or dot on a computer screen.

**PSU** – Power Supply Unit. A box-like component with cables that provides a computer with power.

# R

**RAID** – Redundant Array of Independent Disks. A set of drives configured in an array for improved performance and reliability.

Ultrawide Display

**RAM** – Random Access Memory. The computational workspace of a computer system. It's volatile, meaning the data it stores is lost when the system is reset or turned off.
**RAMDAC** – Random Access Memory Digital to Analogue Converter. Converts image data into signals that can be displayed on a monitor.
**Razer** – Razer Inc. is a gaming hardware company with headquarters in San Francisco and Singapore. Razer's entire product catalogue is gaming oriented. Known especially for its gaming laptops.
**RJ-11** – An old-style telephone connector that looks like a narrow Ethernet (RJ-45) connector. Also used for analogue modems.
**Roccat** – A German peripheral manufacturer that specialises in input devices such as mechanical keyboards and mice, as well as headphones.
**ROM** – Read-Only Memory. An area of protected memory that contains specialised instructions.
**Router** – A hub that manages wired and wireless connections to a network.

## S

**SATA** – Serial ATA. A data transport protocol used for storage devices.
**Screen burn** – The afterimage left on certain types of displays, such as OLEDs, after displaying static images for extended periods of time. Can cause permanent hardware damage.
**SLC** – Single-Level Cell NAND memory. The quickest, priciest and most expensive NAND implementation.
**SO-DIMM** – The type of DDR memory module used in laptop systems. Uses a smaller form factor than standard memory sticks.
**Solid state** – Used to describe a device with no moving parts.
**SSD** – Solid-State Drive. A storage drive made of non-volatile memory cells instead of a moving magnetic platter. Much faster than hard disk drives.
**SteelSeries** – High-end Danish gaming peripheral manufacturer known for headsets, mice and mechanical keyboards.
**Stream processors** – Limited instruction processors used in GPUs to perform specialised functions. Used for high-performance applications.

## T

**TDP** – Total Dissipated Power. The maximum wattage a part will allow before shutting down or throttling to avoid damage or overheating. Can be used as a rough indicator of in-generation performance or efficiency.
**TN panel** – Twisted Nematic panel. An older style of LCD display that offers low price and very high speed, but is also notable for washed-out colours and poor viewing angles.
**Touchpad** – A small flat pad that registers mouse-style pointer movement when you slide a fingertip across it. Used for laptops.

## U

**Ultrawide display** – A computer monitor that sports a cinema-like 21:9 aspect ratio. Available in 2560x1080 and 3440x1440 resolutions.
**UPS** – Uninterruptable Power Supply. A battery-backup power source that enables a computer system to continue functioning in the case of a power outage or other problems.
**USB** – Universal Serial Bus. A small hot-swappable data connector that's capable of high performance when using the latest specifications.



## V

**VA panel** – Vertical Alignment panel. A type of LCD display that delivers high contrast ratios, deeper black levels and more accurate colours. VA panels are ideal for gaming.

## W

**WAP** – Wireless Access Point. The place you log into a wireless network.
**Watt** – A measure of electrical power.
**Webcam** – A usually USB-based PC camera that provides live video for use with conferences, game streaming and other media projects.
**WPA2** – Wi-Fi Protected Access 2. The most robust security protocol currently provided for many Wi-Fi networks.

## X

**XMP** – Extreme Memory Profile. An Intel-derived DRAM settings standard that provides several fail-safe memory configurations beyond the default setting, allowing easy configuration of high-speed memory modules.

YOUR NEXT PC

# BUYER'S GUIDE

## Build the best PC for your budget




### KEY

**Budget build**

PC gaming is for everyone. Pick the parts you want to build a new, well-rounded PC for a good price.

**Mid-range build**

You want to run every new game at 1080p 60fps. This recommended build will see you through.

**Advanced build**

You're looking for the best PC on the market and superior components. But you still want to spend smart.

# BUDGET BUILD

Enjoy 1080p gaming without breaking the bank



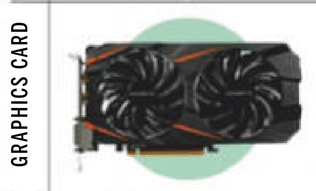
**TOTAL £977**

MOTHERBOARD



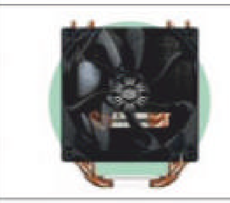
### B360M-DS3H
Gigabyte **£69**
It lacks overclocking options, but the new B360 chipset is far cheaper than the Z370 and is perfect for this budget build.

PROCESSOR



### Core i3-8100
Intel **£124**
A great processor for out-of-the-box gaming performance. Opt for the AMD Ryzen 1300X if you'd like to overclock.

GRAPHICS CARD



### GeForce GTX 1060 Windforce OC 3GB
Gigabyte **£213**
Amidst fluctuating GPU prices, Gigabyte's compact 1060 model offers the best value.

COOLER



### Hyper 212 Evo
CoolerMaster **£25**
Even a budget build can benefit from a good CPU cooler, letting you enjoy a quieter, cooler system.

MEMORY



### Vengeance LPX 8GB (2x4GB) @2400MHz
Corsair **£65**
DDR4 prices are still high, however this Corsair pair is a good value option.

POWER SUPPLY



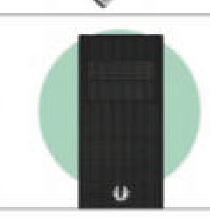
### 500BQ
EVGA **£45**
It may be cheap, but this 500W PSU is more than enough to handle any budget build. This rig only draws 269W at maximum load, too.

SSD



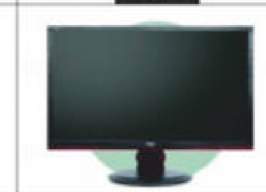
### MX500 250GB
Crucial **£40**
Crucial's SSD range is fantastic value and offers good performance, too. A 250GB drive can hold your OS and essential programs.

HDD



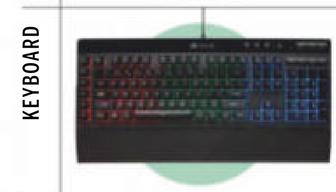
### WD Blue 1TB 7200RPM
Western Digital **£39**
One terabyte of old-fashioned hard storage is the perfect home for all of your media, backups and storage-hungry games.

CASE



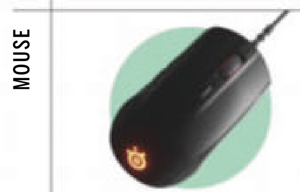
### Neos
Bitfenix **£38**
The Neos provides decent airflow, good support for 3.5-inch hard drives, and a fairly painless build experience.

DISPLAY



### G2460PF
AOC **£210**
This is the cheapest 144Hz gaming monitor you can buy, yet it still offers decent image quality, great performance and Freesync.

KEYBOARD

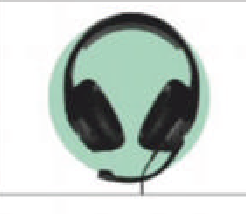


### K55
Corsair **£49**
This keyboard may lack mechanical keyswitches but it offers decent typing, plus it has RGB and extra gaming keys.

MOUSE

### Rival 110
SteelSeries **£25**
A great sensor, simple design and impressively low price make this a great entry-level gaming mouse.

HEADSET



### Cloud Stinger
HyperX **£35**
We love the HyperX Cloud, but at £70 it's too much for an entry-level system. The Cloud Stinger is the next best thing.

# MID-RANGE BUILD

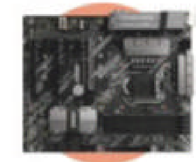
Our recommended build for playing the latest games




**TOTAL**

**£1,705**

MOTHERBOARD



### Z370 Tomahawk
MSI **£148**

This is a nice-looking bit of kit at a good price. Couple that with two M.2 slots, and it's the perfect place to house that Core i5.

PROCESSOR

### Core i5-8400
Intel **£210**

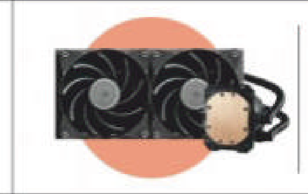
Better default gaming performance and a lower price puts this chip ahead of the AMD Ryzen 2600X.

GRAPHICS CARD

### GTX 1070 SC Gaming ACX
EVGA **£420**

Again, we're making a saving this month on our choice of graphics card. The 1070 is perfect for gaming at high refresh rates.

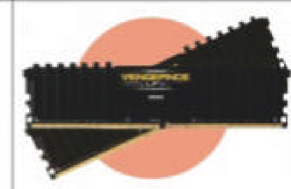
COOLER



### MasterLiquid Lite 240
CoolerMaster **£45**

This 240mm, dual-fan, all-in-one liquid CPU cooler is ludicrously cheap, but performs well and stays quiet, too.

MEMORY



### Vengeance LPX 16GB (2x8GB) @2666
Corsair **£105**

16GB is the minimum amount of RAM we'd recommend for a system of this calibre.

POWER SUPPLY

### RMx 650W
Corsair **£87**

There's nothing like having a quality power supply. Get a decent cable kit for this one and you can easily spice up your rig.

SSD

### MX500 250GB
Crucial **£40**

This is still our SSD of choice. We've kept the capacity the same as our cheaper build, but upgrading to 500GB would be ideal.

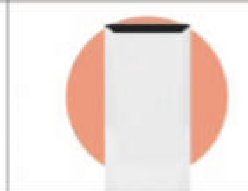
HDD



### WD Blue 1TB 7200RPM
Western Digital **£39**

SSDs are great, but they're still far from cheap. This 1TB HDD will hold as many games as you will need.

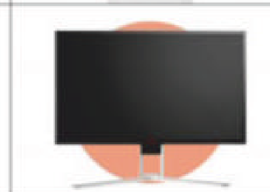
CASE



### Eclipse P400S TG
Phanteks **£80**

The clean lines, intuitive build features and fantastic price cements the Eclipse as our mid-range case of choice.

DISPLAY



### AGON AG251FZ
AOC **£318**

Not only does this 1080p monitor have a lightning-fast 240Hz refresh rate but it produces decent image quality, too.

KEYBOARD



### MasterKeys Pro L
CoolerMaster **£75**

This is one of the cheapest mechanical keyboards, yet it looks and feels great. It only has single-colour backlighting, though.

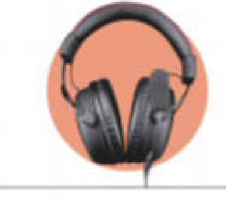
MOUSE



### AW958 Elite
Alienware **£68**

Suitable for any grip thanks to its add-ons, and there's just something about those massive metallic buttons.

HEADSET



### HyperX Cloud
Kingston **£70**

Despite the budget price, we recommend this headset. There's simply nothing better for the money.

# ADVANCED BUILD

Go above and beyond with a PC powerful enough to end worlds



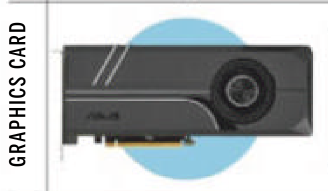
**TOTAL £3,250**

MOTHERBOARD



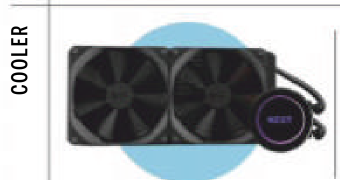
### Strix X470-F Gaming
Asus **£185**
Get the most from the new AMD Ryzen 2700X with this matching X470 motherboard that's packed with features.

PROCESSOR



### Ryzen 7 2700X
AMD **£299**
Easy to overclock and with huge performance out of the box, AMD's new flagship CPU is the one to go for.

GRAPHICS CARD



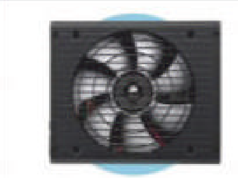
### GeForce GTX 1080Ti Turbo
Asus **£840**
Prices of GTX 1080 Ti's don't seem to have dropped as much as other cards but you're still saving a decent amount.

COOLER



### Kraken X62
NZXT **£140**
The Kraken is the culmination of three of our favourite things: an infinity mirror, a 280mm radiator and slick braided cooling.

MEMORY



### Vengeance LED RGB 32GB @3200
Corsair **£309**
Ryzen is the one processor that does benefit hugely from higher-frequency memory. This kit is perfect for any would-be video expert.

POWER SUPPLY



### HX750i 80 Plus Platinum
Corsair **£130**
Modular, custom cable kits, and a platinum efficiency rating. What's not to love about this Corsair PSU? Nothing, that's what.

SSD



### 970 Evo 500GB M.2 PCIe SSD
Samsung **£129**
Samsung's newest NVMe SSDs push performance to new heights and cost the same as the previous 960 range.

HDD



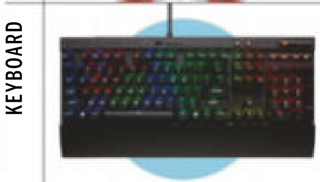
### WD Blue 4TB
Western Digital **£99**
With a large boot SSD, there's little need for a large, cheap SSD. Instead we've opted for a huge 4TB hard drive for all your bulk data.

CASE



### Enthoo Evolv ATX TG
Phanteks **£159**
The 5mm thick aluminium panels resonate with svelte professionalism, and the interior makes building inside this a dream.

DISPLAY



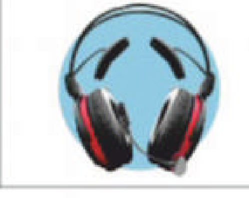
### XB271HU
Acer **£600**
Our previous choice, the AOC AG271QG, has shot up in price. This Acer is now the best value 165Hz IPS gaming display.

KEYBOARD



### K70 LUX RGB
Corsair **£150**
Even when money is no object it's hard to argue against Corsair's latest K70. A no-fuss, solid piece of aluminium craftsmanship.

MOUSE



### Mamba Elite
Razer **£80**
A beautiful design, comfortable shape and outstanding performance make this a brilliant high-end gaming mouse.

HEADSET

### ATH-AG1X
Audio-technica **£130**
What's life without a nice set of cans? The ATH-AG1X set is the pinnacle of headphones, and it's super comfy to boot.

Why do I even bother?

# “Medical crates require an active participant – that’s just how it is”

I do not blame you for not being healed by me in **BATTLEFIELD V**.

**It’s fine, OK. It’s *fine*. It’s just... let’s not forget it was *you* who initiated. “Request medic.” You said that. You requested health, so I placed a medical crate. And sure, I’ll admit that it wasn’t a wholly altruistic act. I was trying to complete *Battlefield V*’s Tides of War objective to heal 400 points of damage with crates. This was a marriage of convenience. You needed health. I needed someone to heal.**

And then you ran past my health crate, and what? Died? Was that your plan? I don’t think that was your plan, but it’s what happened. I’m not going to revive you. There was a medical crate right next to you, and you charged past it and now you’re dead. I don’t *blame* you, per se, but if there was such a thing as objective blame, I think you’d have to admit that some of it is yours.

But it’s fine. This is a confusing war. The rules aren’t consistent. If you run over a dead enemy soldier you will automatically pick up their ammo. If a medic throws you a bandage you will automatically be healed. But crates don’t work that way. You have to actively pick up the bandages. You have to press a button. Who’s got that kind of time? Other than people who don’t want to wait to respawn after they get themselves killed. Sorry. That was uncalled for.

Maybe I’m to blame for carrying the crate. I mean, it gives you full health and a bandage that you can use later. That sounds useful. But the fact that neither you nor any other player on this map has used one, maybe I should’ve known better. That’s fine. I was wrong for trying.

**PHIL SAVAGE**



**THIS MONTH**
Forgave you.

**ALSO PLAYED**
*Destiny 2, Two Point Hospital*

**IN OTHER *BATTLEFIELD* GAMES THE HEALING WOULD HAVE JUST HAPPENED TO YOU**


Fine. Die. I don't care.


The health is RIGHT THERE!

Maybe nobody is to blame. Crates are easy to miss. They don't show up on the minimap, although the way you charged towards all of those red dots suggests you weren't paying attention to that. And, hey, on my first attempt I placed the crate on a hill and it clipped through into some unknowable void. But then I tried again, making sure to sprint in front of you so the crate would appear directly in your eyeline. Maybe you didn't *want* healing, despite telling me just seconds ago that you did.

### HEAL AND GROW

In my darker moments, I wonder why DICE created this new system after decades of medical crates automatically healing in an area-of-effect around them. In other *Battlefield* games the healing would have happened automatically. In other *Battlefield* games, I might have been able to save you from yourself. Maybe you think health crates should return to the previous system, or that you should automatically grab the bandage as you run past, or that there should be some compromise where the crate automatically heals but you can only restock your supply of bandages by grabbing one. Maybe you thought you were an analytical martyr, your death a datapoint arguing that crates aren't working.

But war is unfair. Medical crates require an active participant – that's just how it is. And now you're dead. It's fine. It's. *Fine.* ■


Fruit is essential to the postal service.

# "It's the perfect game for this time of year"

## YOKU'S ISLAND EXPRESS is my favourite to-do list.

PHILIPPA WARR



THIS MONTH
Did the beetle post office proud.

ALSO PLAYED
*Gris*



**You'll be reading this in January, when Twitter is banging on about New Year's Resolutions and Easter eggs are competing with Valentine's plushies for shelf space in every supermarket. But I'm writing this in mid-December, when every available surface is covered with Game of the Year notes and the local Christmas market has both run out of my favourite cheese and thinks that £1 is an appropriate price point for a single macaron.**

I'll get into why this December framing is important to *Yoku's Island Express* in a moment. First, I just need to say that I understand macarons are a pain to make, but only if you're intent on making them look nice on Instagram. Everyone else should get the option to buy the singed, mismatched, 'which real human has time for this ageing egg whites nonsense' macarons, which still taste *fine* for, like, 10p.

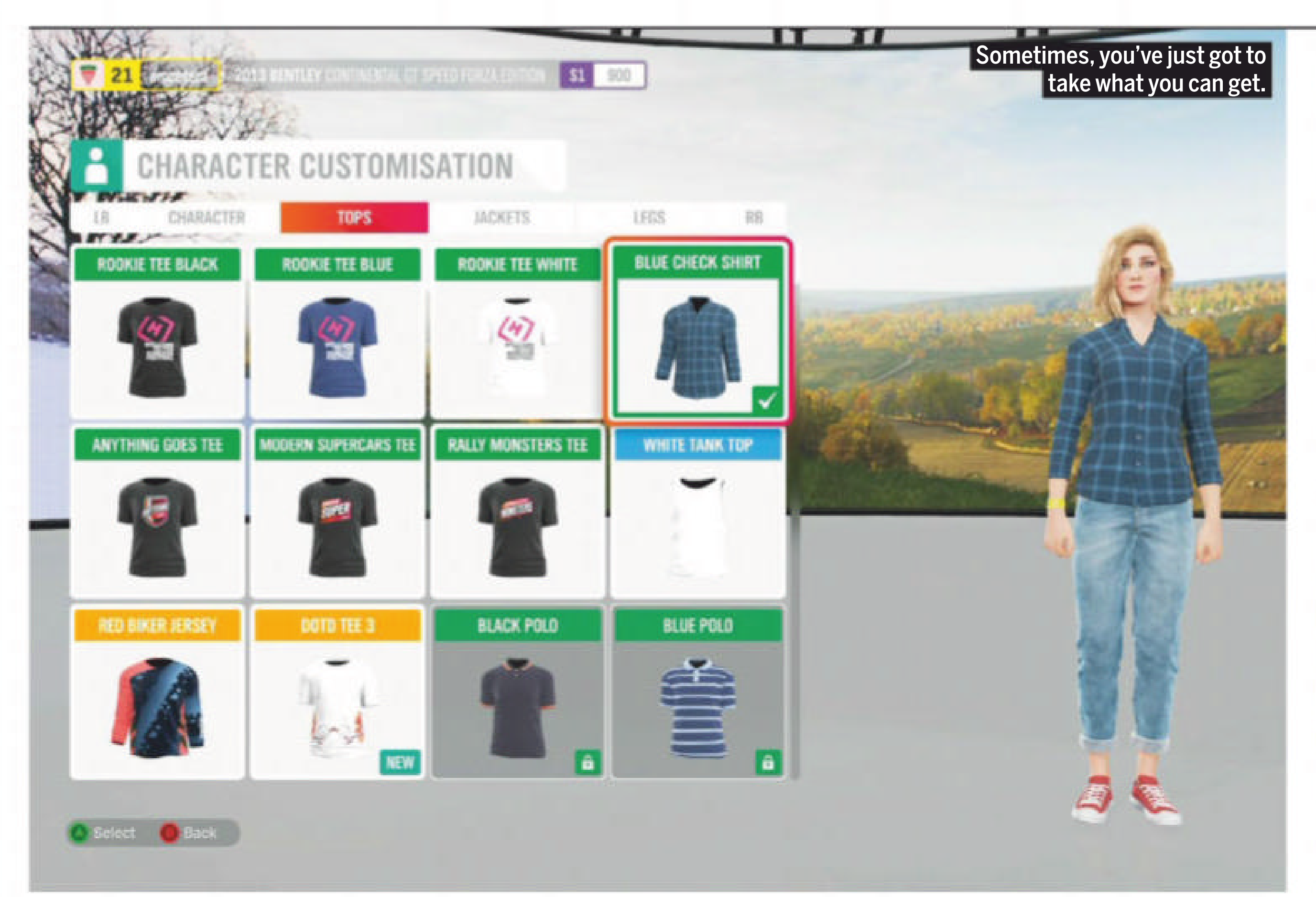
*Yoku's Island Express* is a game about a dung beetle postman who I fling round an island using only my pinball prowess. Said island is a tangle of chutes, bumpers and flippers which I can use to reach different areas or solve little puzzles, all the while delivering the post.

### PINBALL WIZARD

It's the perfect game for this time of year because playing it means I'm plugging a gap in my 2018 release list, but via a manageable portion of gaming. Y'see, *Yoku's Island Express* is a tight, bright platformer which does the thing it does well, and a) isn't incredibly emotionally draining (I see you, *Frostpunk*) and b) isn't a time vampire (*Assassin's Creed Odyssey*, *Hitman 2*, *Pillars of Eternity II*...) or a time vampire with no end point (*Fortnite*, *Warframe*, *Destiny 2*...).

One last quality which makes *Yoku's Island Express* a good fit for my end-of-year mindset is that in real pinball you can lose. But *Yoku*'s devs don't care how many tries it takes me to flip the dung beetle into the right tube. The closest they come is counting how many times I fall into a thorn bush. I can just bounce around until I land the shot.

And so, I used a party blower to startle a bat into crapping itself, I punted a ball, which turned out to be an egg, from a precarious ledge to a worried tree stump, and I delivered one of three massively overdue packages. It's like a to-do list which I can actually complete! It's the opposite of an email inbox! ■



Sometimes, you've just got to take what you can get.



Let me guess... another car? You shouldn't have. No, really.



# "All I want is a nice skirt, some patterned leggings or even just a tee"

## Shunning supercars for shopping trips in FORZA HORIZON 4.

**They're a generous lot, my employers in *Forza Horizon 4*. Bonuses I have been given over my time in the game include buckets of praise every time I make other road users fear for their lives, an actual *house* in exchange for a minor favour and pretty much an entire garage full of cars. Actually, scratch that: it's more like a car dealership. I've got everything from retro bangers that Simon from The Inbetweeners would turn his nose up at, through to an expensive supercar that spits fire from its exhaust in a fashion that makes me suspect it'll fail its next MOT. Still, I'm not satisfied.**

The reason? My outfit. While it was easy to make my Drivatar look at least vaguely like the real me (I've got a very generic hairstyle, I admit) and to get my disconcertingly chirpy satnav/AI chum to call me by my actual name, getting away from the default outfit has been more hassle than getting off the M25 in rush hour. Jeans and a promo tee? That just ain't my style. First, if you're making me use my chest as a walking billboard for your racing festival, you'd better be paying me for the privilege.

EMMA DAVIES





THIS MONTH
Experienced the ultimate first-world problem: too many cars.

ALSO PLAYED
*Tetris Effect*

Second, dresses, skirts and leggings are where it's *at*: scientific research (carried out by me) has demonstrated that elasticated waistbands allow for at least 57% greater consumption of chicken nuggets by volume. In short, this kit has got to go.

### THREADS NOT TREADS

As a result, I become borderline obsessed with the game's Wheelspin mechanic, which grants you a turn on the wheel of fortune after certain achievements. Prizes include hefty sums of credits, new emotes, horns for your cars, actual vehicles and new threads. I rack up spins thick and fast, because (brag alert!) I'm not terrible at this game, as the AI likes to primly remind me as it nudges me to up the difficulty. The problem is, all I bloody win is *cars*. So many cars. How do you think I laid my mitts on a Pagani Zonda C? I sure as heck didn't pay 2.1 million credits for it.

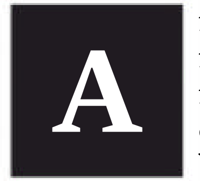
I hate to sound ungrateful, but new rides are wasted on me: I'm content with the first Bentley I won, now tricked out with an obnoxiously large spoiler, a holographic purple paintjob and a gold bonnet. Subtle it's not, but it's certainly easy to find in a car park. All I really want is a nice skirt, some patterned leggings or even just a tee without some godawful garish logo on the front.

**THEN, ONE GLORIOUS WINTER DAY, THE TEXTILE GODS SMILE BEATIFICALLY DOWN ON ME**

In my bid to look like I've managed to make even the briefest of pitstops in Primark, I end up haring back and forth across the British countryside like a 17-year-old who's just got their licence, agreeing to any and every deathrace, dumb stunt and dangerous show-off feat going. The cumulative amount of road tax I'm paying skyrockets. And then, one glorious winter day, the textile gods smile beatifically down upon me, and I'm gifted... a blue checked shirt. Yep, the clichéd, much-ridiculed uniform of the games journalist. I guess it's a start, at least. ■

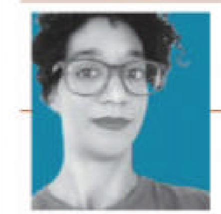
# "You need to look after the few to understand the needs of the many"

## Trying to be a woman of the people in FROSTPUNK.



**After another year that felt as if it's hidden a few extra years inside of it, it's the season to be grateful that I'm warm and cosy inside when outside it's anything but. Time for the game that takes the meaning of winter blues to a whole new level.**

MALINDY HETFIELD



THIS MONTH
Trying to please at -40 degrees.

ALSO PLAYED
*Mutant: Year Zero, Wandersong*

The very premise of *Frostpunk* always made me apprehensive to pick it up. It's not just a city builder about building, a management sim about management. Instead, it's about compromising and watching well-laid plans fail. As realistic as that is, I just want my little virtual citizens to be happy and whole.

On the outside, there's no reason for my instant attachment. *Frostpunk* doesn't let you zoom in closely to your citizens. They're just a bunch of grey-cloaked Johns, Jameses and Marias, but they're all equally worthy of my attention. They're modest, too. They just want shelter, a place to work and a way to treat their sick.

I've built whole civilisations, micromanaged the lives of tiny humans and designed theme parks with enough distance between food stands and rollercoasters to stop visitors from barfing immediately, but this is a colossal task.

### A HARD DAY'S NIGHT

*Frostpunk* wields my citizens against me by using them to demonstrate the consequences of my actions. I will never forget the man so terrified of an amputation that he begged me not to go through with it. He died as a result of my actions. Not just a number that blinked out at the end of a hard day, but someone I built a graveyard for and whose family could only take a single day off to mourn him. Elsewhere, a man gets up at 2am to build a street I've carelessly decided on. When he falls ill, I feel terrible. Not wanting to raise anyone's ire, I dole out medical posts like candy and let people languish at home whenever the temperature drops to critical levels until I can afford to keep everyone warm.

**NOT WANTING TO RAISE ANYONE'S IRE, I DOLE OUT MEDICAL POSTS LIKE CANDY**

Although *Frostpunk* confronts you with extremes, it makes me wonder what being in a position of responsibility such as this would be like. It's likely I would internalise the issues of my constituents to the point of paralysis. Every notification seems to herald the arrival of a problem. If this is what being a world leader is like, I'm not surprised that little gets done. I start to consider real-world cases of people lacking the bare necessities and the time it seems to take to restore supply lines after a disaster. Shouldn't there be more people who feel equally frantic to help in these situations as I do now?

*Frostpunk* makes its position clear – people should survive and work together to create a space that makes life worth living. It's this decisiveness I miss in real life. If anything, *Frostpunk* has heightened my conviction that sometimes you need to look after the few to understand the needs of the many. ■

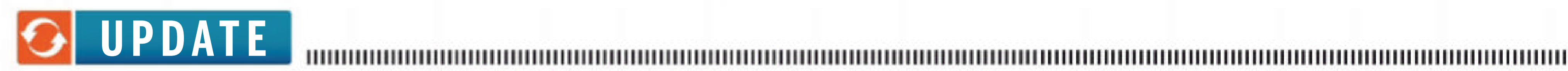


Medical posts will help with the many injuries I've caused.





*Frostpunk* is, to put it mildly, quite bleak.



# WARFRAME

The new *Fortuna* expansion is thrilling and bizarre. *By Steven Messner*

**It's a surreal experience to spend hundreds of hours confined to *Warframe's* procedurally generated corridors only to step out into the massive, frozen wasteland of Orb Vallis. It's a winter wonderland of new enemies to kill, resources to harvest and cute monsters to capture as part of *Warframe's Fortuna* expansion. Released in November, *Fortuna* is a transformative update that once again sees *Warframe* boldly step into a new direction from the claustrophobic free-to-play loot shooter it started as back in 2013.**

It's a direction I hope to see Digital Extremes stick to, because *Fortuna* is one of the best updates *Warframe* has ever received. This isn't the first time *Warframe* has dipped its cybernetic appendages into the open world coolant, but *Fortuna* significantly improves on just about every core feature of the previous Plains of Eidolon zone. It's less grindy, adds more varied activities, and is a great deal less buggy too.

Before you can go romping around Orb Vallis, though, you need to win the trust of the Solaris who live there. These cyborg slaves are forever indebted to Nef Anyo, a hypercapitalist overlord that is using them to work the terraforming machines that turn this slice of scorched Venus into a shimmering tundra. But Nef Anyo isn't a benevolent leader. The Solaris are trapped in a cycle of debt and are interned in a colony called Fortuna where they live in fear of having their robotic implants forcefully repossessed. Naturally, it's up to space ninjas like us to doll out some much needed justice for these folk.

### NEED TO KNOW

| | |
|---|---|
| **RELEASE** March 25, 2013 | **DEVELOPER** Digital Extremes |
| **PUBLISHER** In-house | **LINK** www.warframe.com |

## OUT ON THE TOWN

Despite the bleak setup, Fortuna is a lively place, and one that I'm happy to return to between missions. The new characters are quirky, and the chain gang song they sing has been stuck in my head for weeks.

Fortuna acts as a hub where players can socialise and unlock the new features that make exploring Orb Vallis so fun. Easily the coolest of these are the K-Drive hoverboards, which combine *Warframe* with *Tony Hawk's Pro Skater*. While you can still use your flying Archwing to get around, it's more fun to ride these hoverboards that turn every rock formation into the MegaRamp from the X Games. There's just something so cool about grinding a coolant pipe as an exosuit-wearing cyberninja.

*Fortuna's* other features are just as fun. Players can find bits of animal tracks that they can follow that lead you to the stomping grounds of Orb Vallis' fauna. Using lures, you then play a game of call-and-response with the critter to lure it out where you can tranquillise it and transport it to a sanctuary. Doing this is fun on its own, but the real treat is that capturing enough of a specific breed rewards you with in-game plushies.

Activities like mining, fishing and animal conservation all reward rep points with the Solaris that can be spent on unlocking better gear and blueprints. This time around, players can not only customise their own secondary weapon from various parts, but they can also build a dog-like 'Moa' companion that accompanies them on missions.

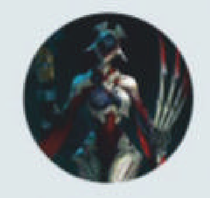
And that's just the beginning. Before the end of the year, *Fortuna* will receive a second update that unlocks more of the story and a new endgame boss battle against the giant robot spiders that protect Nef Anyo's treasures. That next chapter will see the Solaris rise up to battle their oppressors, but the climax of that battle won't happen until much later. First teased at *Warframe's* annual fan gathering this summer, Digital Extremes announced the *Railjack* update would eventually let players seamlessly fly to low orbit above Venus in their very own spaceship. Like *Warframe's* take on *FTL*, players will have to work together to man various stations aboard their craft while repelling invaders and even sending one of their own to infiltrate Nef Anyo's capital ship. Like *Fortuna*, *Railjack* promises to be a transformative expansion that once again redefines what *Warframe* is.



**_WARFRAME_ IS CONSTANTLY TRYING TO REINVENT ITSELF**

Digital Extremes hasn't been content to just give players more of the same. *Warframe* is constantly trying to reinvent itself while also iterating on that core of shooting and looting that makes it so much fun. *Fortuna* is a great update in its own right, but it also feels like a good omen of better things to come. ■

## BLOODTHIRSTY *The new Garuda Warframe's abilities*



**DEATH'S GATE (PASSIVE)** The less health Garuda has, the more damage she deals.



**DREAD MIRROR** Rip the blood straight out of your foes and use it as a shield or turn it into a gory projectile.



**BLOOD ALTAR** Impales an enemy on an altar of talons, siphoning health for Garuda and her allies.



**BLOODLETTING** Garuda sacrifices a portion of her own health to restore some of her energy.



**SEEKING TALONS** Send Garuda's talons screaming into any nearby enemies.

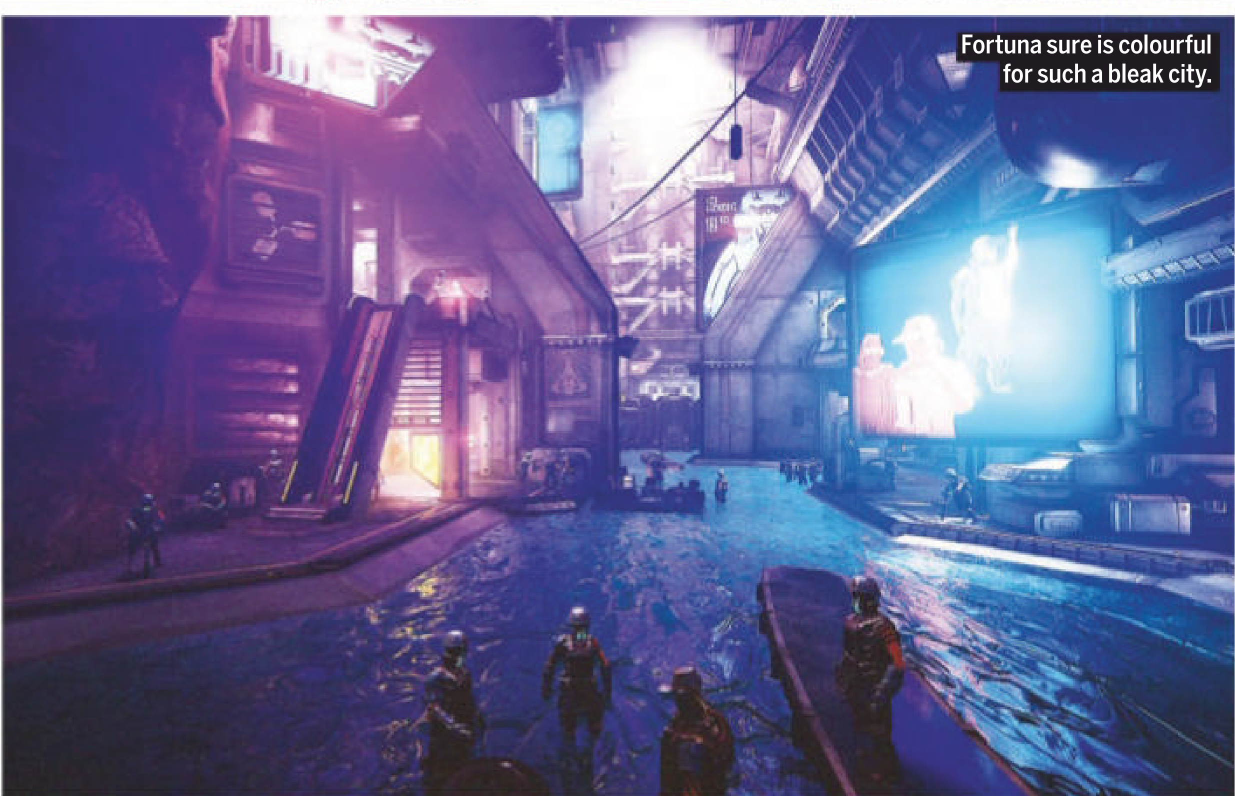
These giant spiders serve as *Fortuna*'s endgame bosses.


Crafting the new Garuda Warframe requires some expensive materials.


Take a break from murdering to spear some robo-fish.

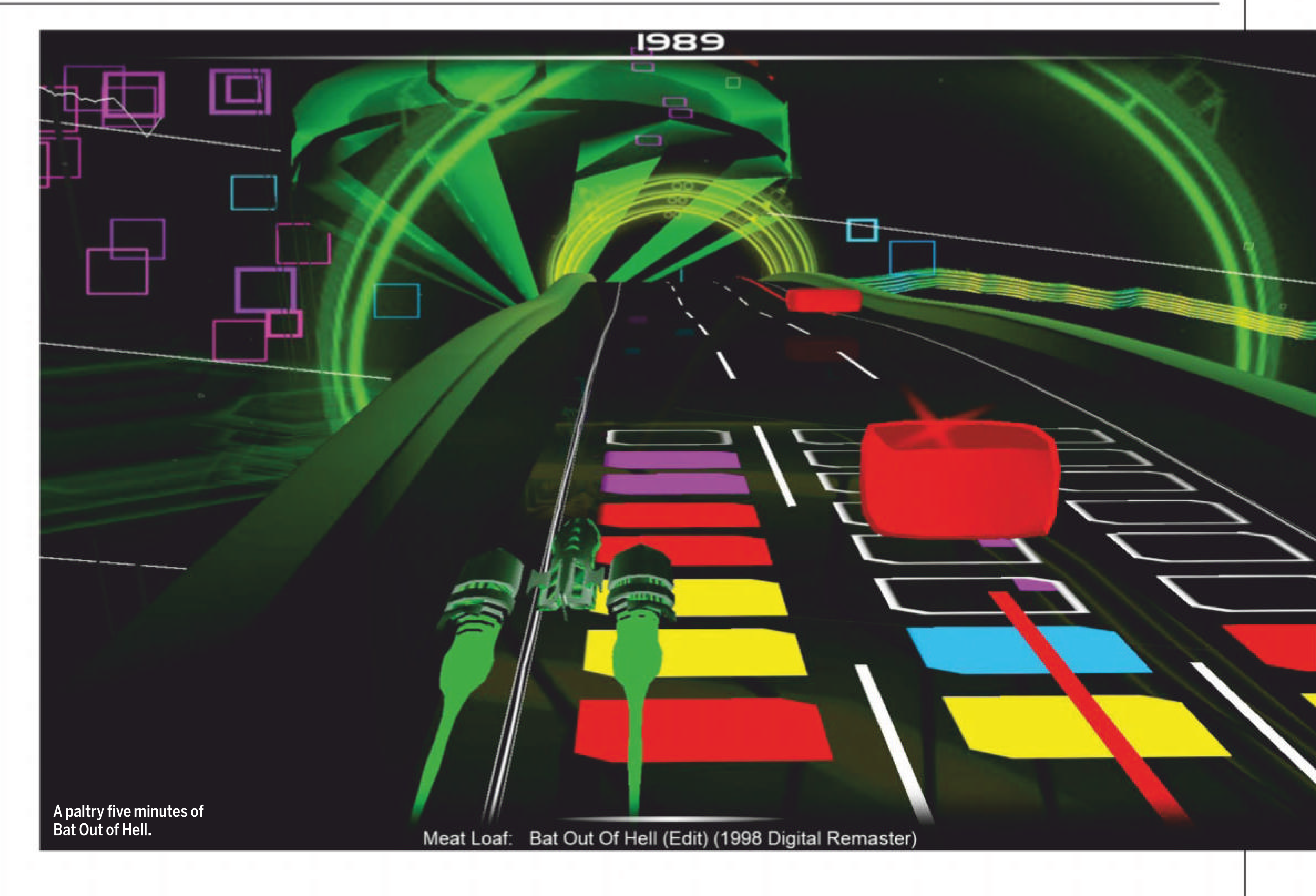






Fortuna sure is colourful for such a bleak city.



# "No one actually owns any music nowadays"




A paltry five minutes of Bat Out of Hell.

# AUDIOSURF

Making tracks out of tracks. *By Philippa Warr*

**I had not considered that in this, the sixth Year of Luigi, finding music to play in *Audiosurf* would be a problem. Turns out I stream *everything*. The only CD I actually own is Bette Midler's It's The Girls album and even then I'd need to stream the tracks from that via Spotify because I don't have a disc drive on my PC anymore.**

After exhausting the sole track included with the game (Audiosurf Overture by Pedro Macedo Camacho) I decide to stream Audiosurf Online Radio, which is basically just a Soundcloud playlist. The only song on the playlist is Audiosurf Overture by Pedro Macedo Camacho.

I only discover this later when Phil looks it up, as trying to connect to Audiosurf Online Radio by clicking a very 2008-looking button marked 'www' causes the entire game to crash. Even Windows' task manager can't help me fix it, so I have to reboot my whole PC.

Rather than risk the World Wide Web again, I'll need to feed *Audiosurf* some MP3s directly. This is how I end up on the Free Music Archive downloading songs like 'Happy Birthday' by Eric Rogers (a celebration of the birthdays of people called Eric and Shelly) and 'i love you' by Catherine Pancake (a woman who says the words 'olive juice' over and over until they gradually turn into 'I love you').

## MAKING A POINT

*Audiosurf* takes these files and turns them into futuristic racecourses, each spackled with coloured blocks. Collecting groups of matching coloured blocks in each lane of the track is how you earn points. Warmer colours are worth more points, so red is the most desirable pickup and blue is chump change. If you clog up a lane with non-matching colours you can't pick anything up for a while.

Happy Birthday is too short to be an enjoyable course, and i love you is slightly too weird. The Freak Fandango Orchestra's Requiem for a Fish works surprisingly well. The latter has a jaunty folk rock thing going on which means there are plenty of blocks on the screen to maintain your attention, but after that I was struggling for mp3 options. Ambient electronica makes for absolutely tedious racing, while punk started giving me a headache, because I'm a million years old and deeply uncool.

This is when I took my problem to the rest of the PC Gamer team.

### NEED TO KNOW

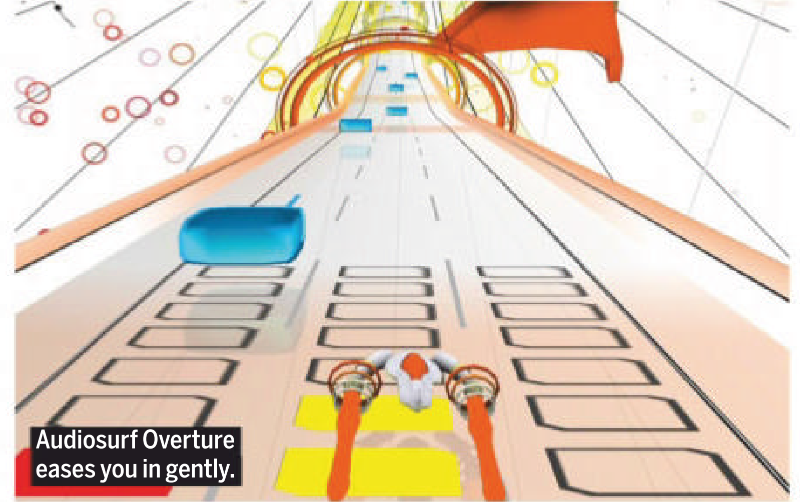
| | |
|---|---|
| **RELEASED** Feb 15, 2008 | **DEVELOPER** Dylan Fitterer |
| **PUBLISHER** in house | **LINK** www.audio-surf.com |



She Wolf is brilliant, but it translates to a bad course.




Spoiler: I did not get a gold medal.



Audiosurf Overture eases you in gently.

"No can do on the Reinstall, Phil," I say. "No one actually owns any music nowadays."

This is how I come to learn that Phil paid money for an album called Monster Halloween Hits. He is very keen to distance himself from his purchase of Monster Halloween Hits, insisting that it was 'necessary' for a party his stepfather's pub was hosting back in 2010. I don't remember anything I bought in 2010 so it seems unlikely that Phil would recall this album so easily if he wasn't still listening to it regularly.

### REGULAR HAUNTS

The track listing of Monster Halloween Hits reads like an exercise in Halloween keyword searches. Sure, there are classic tunes like Michael Jackson's Thriller and Monster Mash, but the rest are just songs with vaguely spooky words in the title. And where the hell is the sublime Things That Go Bump In The Night by allSTARS* (a band which no one seems to remember except me, and whose members included a woman who played an Australian housemate in the eighth season of UK version of Big Brother and the guy who plays Darren Osborne in Hollyoaks)?

While I listen to Things That Go Bump In The Night via a terribly low-quality YouTube video, I decide the biggest stumbling block with Monster Halloween Hits is that tonally it's all over the place.

Picture the scene: you go to the pub (the one which Phil may or may not have made up) expecting cheesy over-the-top cobwebstravaganza realness, and as you walk through the door the CD spits out Radiohead's Creep. You go to the loo to try to get over your sudden waves of angst and alienation and by the time you get back it's barrelled on towards Iron Maiden (The Number of the Beast, since you asked).

You try to order a snakebite and black because memories of some metal club night at university are stirring and while you shout your order Ding Dong! The Witch is Dead pops up. You don't know how to deal with this change in mood so you slide a quid onto the side of the pool table. You know pool. You like pool. Pool is pretty low-stress for you. Then O Fortuna from Carmina Burana starts up. Your pool game is now the most dramatic event of your life. You throw the pool cue onto the floor and run to the taxi rank. It's all too much. You never attend another Halloween party as long as you live.

I mean, Ghost Town by The Specials in on there. I assume it's because it namechecks ghosts. Ghost Town is a song about unemployment and the decay of once-thriving areas. There's a creeping horror there, sure, but not in the kind of campy

## SINS OF OMISSION

*Unfair exclusions from MHH*



**THINGS THAT GO BUMP IN THE NIGHT ALLSTARS***

I don't see how you can call this a Halloween album if you're going to leave out the best Halloween pop song of our time.



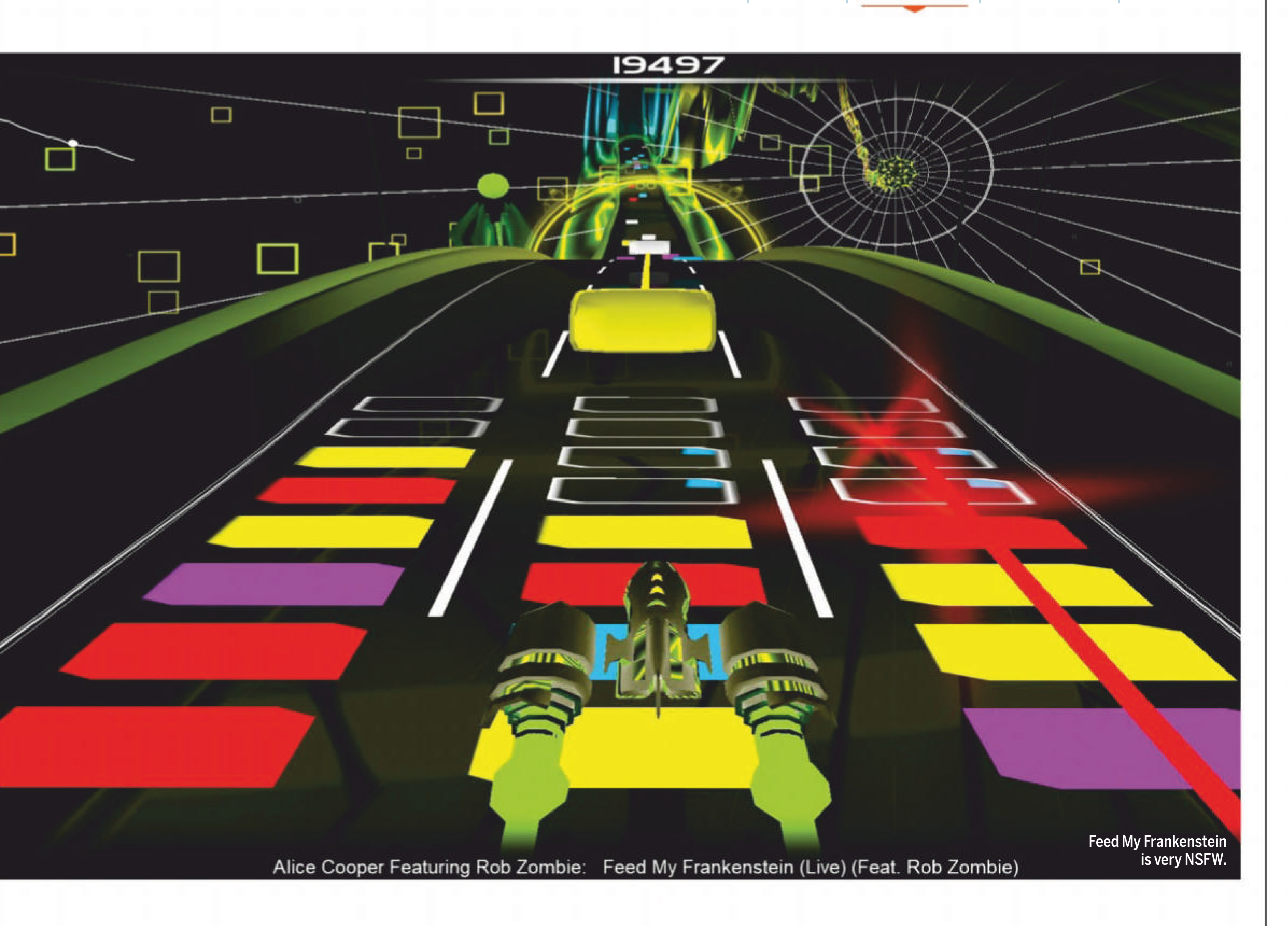
**BETTER THE DEVIL YOU KNOW KYLIE MINOGUE**

So many songs included for their mentions of 'devil' in the title and you don't bother with this banger from Kylie? FOR SHAME.



**BLACK MAGIC LITTLE MIX**

Little Mix didn't actually exist until a year after Monster Halloween Hits came out, and Black Magic wasn't released for another four years, but still.




Feed My Frankenstein is very NSFW.

## PHIL PAID MONEY FOR AN ALBUM CALLED MONSTER HALLOWEEN HITS

over-the-top Halloween way. More in the way of political unrest and a loss of faith in governance. There's also Black Night by Deep Purple, maybe because dark, gothy colour palettes and night are spooky?

Shakira's She Wolf is more interesting. It is ostensibly about werewolves, but, look, the werewolf is a metaphor for sexual agency and freedom. It's a lot like Dracula, but instead of trying to put an end to all the sucking and seducing, Shakira's like, "Mate, I've got a radar to track down eligible dudes and the emergency services on speed dial in case it gets so hot it catches fire." She Wolf is also a total CHOON.

### FURTHER COMPLAINTS

I suspect that embracing a playful riff on folklore was less important to the selection process for Monster Halloween Hits than the fact it has the word 'Wolf' in the title. It is on the same CD as Creep and the only reason I can see for choosing Creep as a Monster Halloween Hit is that creep is part of the word 'creepy'. This logic also would help explain Poison by Alice Cooper. Actually, it wouldn't.

My beef with Ding Dong! The Witch Is Dead is a little more nuanced. Ding Dong! The Witch is Dead is about a witch, and witches are a Halloween staple. So far, so logical. But Ding Dong! is from The Wizard of Oz. It's about a very specific witch being killed in extremely specific circumstances, i.e. being crushed to death under a gallivanting house. The commercial and party-focused strands of Halloween are not so much about eradicating witches as plastering them over everything.

The only thing I can think of here is that in the movie, the singing of the song is overseen by Glinda the Good Witch so maybe there's an ambient non-squashed witch in the song's general orbit. I will, however, point out that Glinda dresses more like a tooth fairy or the kind of doll with a massive skirt your grandparents might use in the bathroom to hide spare rolls of toilet paper, and is not anything remotely Halloweeny.

What it all comes down to is that there doesn't seem to be any form of curation here. A compilation done right feels coherent. It feels like it's either worth listening to the songs in order, or that it offers a comprehensible tone which can withstand being put on shuffle. Monster Halloween Hits avoids both. If one were to, for example, crack it out for use at some definitely non-fictional Halloween party at one's stepdad's pub, you'd be signing up to spend the entire evening with a finger hovering over the skip button.

This is why no one owns music nowadays. We saw Monster Halloween Hits and decided that life was too short for these shenanigans. Well, everyone except Phil. Phil decided that this was exactly the lifestyle he was going to embrace. A life with Ding Dong! The Witch Is Dead and no Things That Go Bump In The Night.

I guess what I am trying to say here is that this Reinstall of Monster Halloween Hits was a complete disaster.

*Audiosurf* is fine. ■

# SOLITUDE

Sometimes it's nice to be by yourself. *By Andy Kelly*





**RIGHT:** In the far reaches of *Elite*'s massive galaxy, it's rare to encounter other players.



**I don't like noisy games. The ones where someone is constantly prattling on in your ear about your next objective, or some forgettable orchestral score is blaring over everything. It's nice when a game just decides to shut up for a while, because as someone who primarily enjoys singleplayer games – and, this may be related, an only child – I love being left alone.**

Some games do loneliness really well, and it's particularly effective when it's threaded into the story. In Campo Santo's fantastic debut *Firewatch*, protagonist Henry hikes deep into the Wyoming wilderness to escape his troubles. You do spend a lot of the game conversing with fellow watchperson Delilah, but there are long stretches where all you hear is the wind in the trees, twigs cracking under your feet and birds chirping.

Ambient sound design is an underappreciated aspect of videogame development, because it's something ultimately designed to go unnoticed. But in the likes of *Firewatch*, *Dear Esther*, *Everybody's Gone to the Rapture*, and other slow-paced narrative games, stopping and just listening to the world around you, soaking in your surroundings, can be enormously immersive – particularly if you have a good pair of studio headphones.

A rich soundscape also heightens the feeling of being isolated, especially in something like the brutal, brilliant survival game *The Long Dark*, whose Canadian wilderness is absolutely haunting. This is another game built around the concept of loneliness, of relying on yourself in a cold, uncaring place. This might be why the story mode, where you can interact with several NPCs, isn't as compelling an experience as the sandbox.

## ALONE TIME

When one of *The Long Dark*'s blizzards rolls in, you're often forced to run for shelter: a cave, say, or the remains of an old cabin. And as you huddle next to your campfire, the wind screaming, a blanket of white on all sides, you can't help but be swept up in the moment. Now imagine that situation with some annoying NPC sidekick buzzing in your ear, or another player being annoying, and you can see why sometimes it's better to be left alone.

This is also why I prefer offline survival games. In something like *ARK* or *Rust*, there are always other players sprinting around, usually being a nuisance. But when you crash land on that planet in *Subnautica*, your little escape pod bobbing up and down in a vast, alien ocean, you really do feel lost and alone. Even in *DayZ*, where player interaction was, let's be honest, the only reason to play, some of my favourite moments were spent on my own, hiking deep into the mountains of Chernarus on a hunt for supplies.

Online games can be lonely, too. I always play *Elite Dangerous* in Open Play mode, which means you can run into other pilots. But the sheer scale of the galaxy means, once you get away from the common starting areas, it's unlikely you'll ever see anyone. But that makes those occasions when you *do* run into someone in some distant, backwater system all the more special. I've shared brief, beautiful moments with other players in these situations – usually just a fleeting hello – before we inevitably part ways again.

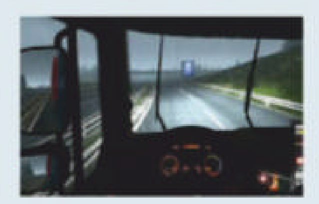
## LOST IN THE PLOT

Another problem with noisy games is it's often difficult to absorb the story. Between cutscenes, conversations, radio chatter, audio logs and other plot delivery methods, it's often a lot to process. That's why quieter, slower games – the 'walking sims' of the world – are so effective when it comes to narrative. As you explore that big, ominous Oregon house in *Gone Home* you can really absorb the story and, importantly, do so at your own pace. You aren't being force-fed a story: you're picking leisurely from a buffet, and that gives you the time you need to process what you're seeing and hearing.

**AMBIENT SOUND DESIGN IS AN UNDERAPPRECIATED ASPECT OF VIDEOGAME DEVELOPMENT**

Think of all the times you haven't been able to enjoy something because of the presence of other people. Idiots talking in the cinema or at a gig; tourists selfishly hogging something you want to see; people chatting in front of the bread aisle when all you want is a granary loaf. Sometimes people just ruin things, and the same applies to videogames. So I'm thankful there are virtual places where people are an afterthought, and it's possible to enjoy some quality time alone, away from it all. ■

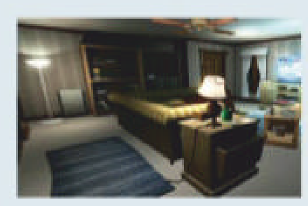
## ALL BY MYSELF *Some of the loneliest games on PC*



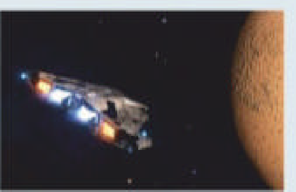
**EURO TRUCK SIMULATOR 2**
It's just you, a shipping container and the road. For the duration of the journey, the cosy confines of the truck are your world.



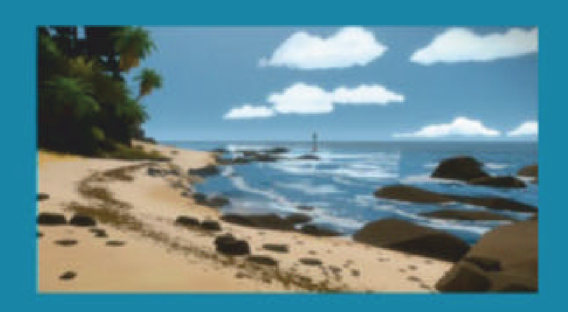

**EVERYBODY'S GONE TO THE RAPTURE**
You're the only living soul in a rural town, exploring its surroundings to discover what happened. The solitude is palpable.



**GONE HOME**
A touching tale of broken dreams, rebellion and young love set in a big, empty Oregon house. The ambience make you feel powerfully alone.



**ELITE DANGEROUS**
Such is the vastness of the Milky Way the chance of you running into another player is very rare. It's just you, the stars and the endless void of space.



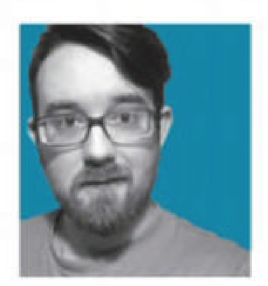
**RIGHT:** Survival simulator *The Long Dark* was designed around the player feeling isolated.








**FRASER BROWN**



Playing these in the correct order reveals a single mystery of the universe. And a Steam achievement.




## MINIT

www.minitgame.com

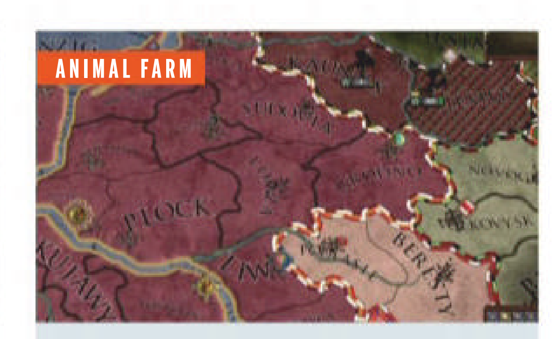
You have a minute to do what you're going to do, and then the world resets. There are dungeons, monsters and chatty NPCs – all you'd expect from an adventure – but you can only really focus on one thing at a time. Your life depends on you being economical with your time, so you've got to be incredibly precis-




## RIMWORLD

www.rimworldgame.com

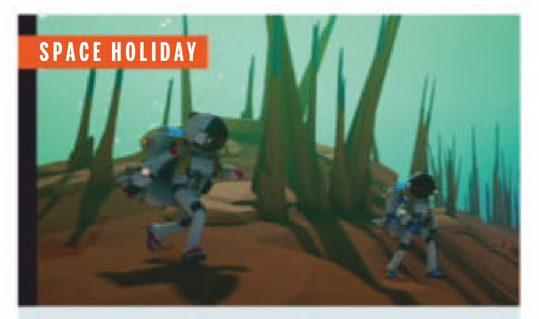
The colonists devoured their pets, but the ground was still frozen and their bellies were still empty. A timely raid saved the day. The colonists stood their ground and defeated the bandits. They celebrated with bandit meat. *Rimworld* is a colony sim and brilliant storyteller, but most of the stories it tells are very, very grim.




## CRUSADER KINGS II

www.bit.ly/crusader_kings2

*CKII* has grown into an enormous grand strategy RPG, and it looks like it still has some tricks left. With its latest expansion, *Holy Fury*, you can finally rule an animal kingdom. Lead an empire of ducks, assassinate your dragon-husband, win a war against an egg – it's like Game of Thrones by way of Redwall.




## ASTRONEER

www.astroneer.space

*Astroneer* is technically a survival game, but it's easy to forget that, given its laid-back approach. It doesn't go out of its way to kill players, and while oxygen and power are needed to survive, scarcity isn't a problem. This leaves its astronauts plenty of time to build, explore and play around with custom vehicles.




## UNAVOWED

www.wadjeteyegames.com/games/unavowed/

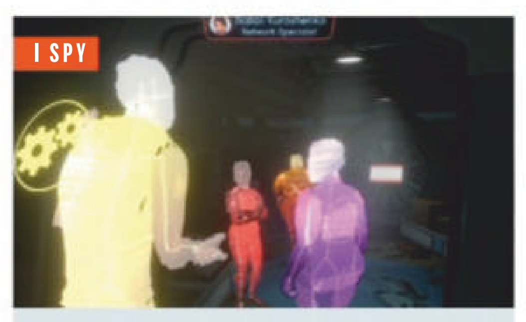
Wadjet Eye's urban fantasy adventure game is at times evocative of traditional point-and-clicks, but it's got BioWare-style companions, meaningful consequences and satisfying puzzles. It's also blessed with a cracking story full of very human characters, even when they're ancient demons.




## SUNLESS SEA

www.failbettergames.com/sunless

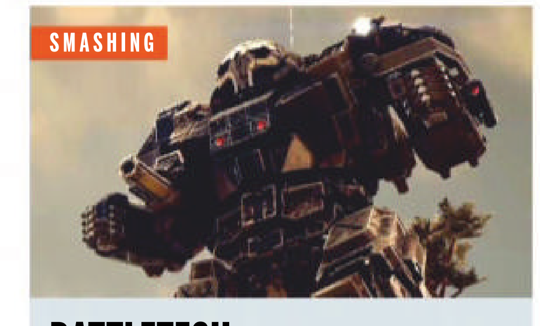
This plonks you in this gloomy sandbox with a ship, and from there you just have to try and lead your best life. That means feeding your crew, staving off insanity and exploring islands where you could encounter any number of oddities, including a war between talking guinea pigs and rats.




## TACOMA

https://www.tacoma.game

Walk around a deserted station and watch recordings of the people who used to live there – it doesn't sound all that gripping, but it's a brilliant, intimate space soap. You're there to grab the station's AI and get out, but that objective plays second fiddle to immersing yourself in the lives of the fascinating crew.




## BATTLETECH

www.battletechgame.com

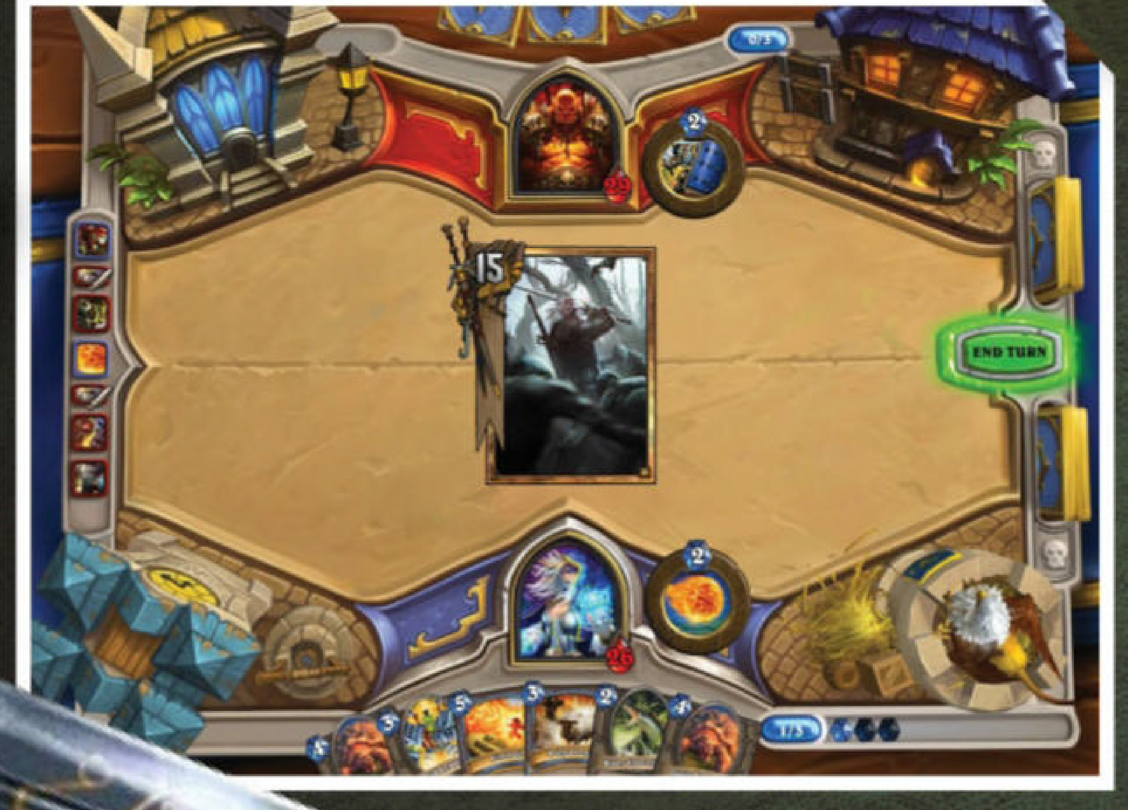
Watching a mech launch itself, axe at the ready, onto an enemy is one of the most satisfying things my eyes have seen. Despite its serious civil war campaign and detailed customisation, *BattleTech*'s really about big, primal brawls. Mechs headbutting each other, stomping on tanks, roasting pilots – it's brutal.

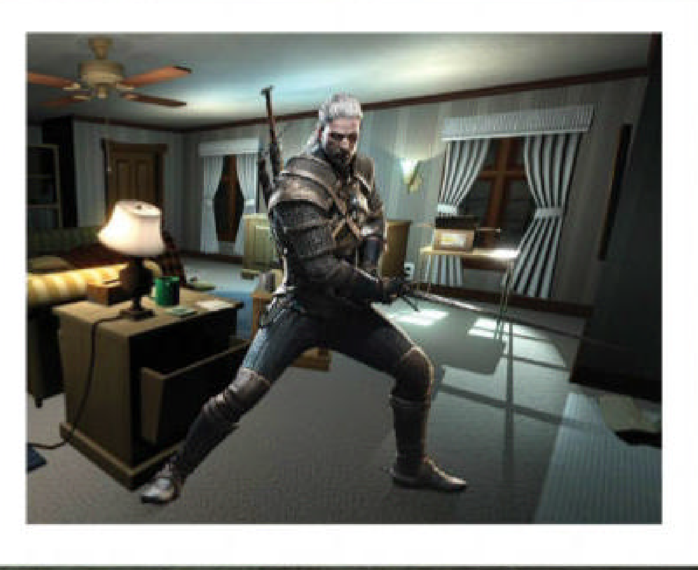
# GERALT of CAMEO



**GERALT** has retired and now spends his days starring in other people's games, from *Monster Hunter* to *Soulcalibur*. But where next?





...UNTIL
FEBRUARY
07